This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

L RESEARCH LIBRARIES
33 06275489 4

VGA

TECHNOLOGY DIVISION

The EDISON Monthly

JANUARY 1921

THE NEW YORK·EDISON COMPANY
Irving Place & 15th Street, N.Y.

The Electrical Directory
and the Edison Show-rooms

THE very great increase in the number of names listed, and consequently the broadened scope and added importance of The Electrical Directory make it necessary to issue it as a separate publication rather than as a department of THE EDISON MONTHLY. The Directory in its new form will be distributed partly by mail and partly through the offices of The New York Edison Company. It will be sent without charge to anyone upon request.

The Electrical Directory is published for the purpose of rendering the greatest possible assistance to those desiring to use Edison Service for any purpose. Its lists include the names of dealers in every form of electric appliance, manufacturers or their agents, and contractors who do electrical work in the territory served by this Company. So far as is possible, the accuracy of each name and address is carefully verified.

Another object of the Directory is to give to every manufacturer, agent, dealer, and contractor an equal chance with those desiring to purchase devices or to have equipment made.

The Company desires to encourage the establishment of the largest possible number of dealers in electrical devices, appliances, and incandescent lamps, and of independent electric contractors who do satisfactory work at fair prices. It is believed that this policy is in keeping with the public interest, and is aided through a directory of this nature.

Each manufacturer or agent has equal right to free space, electric current and demonstration in the various show-rooms of the Company, and equal endorsement by the Company's representatives when talking with prospective purchasers. The Company's representatives are forbidden to recommend any particular device as compared with another, and final choice in the purchase must rest with the purchaser.

It might be added that the Company itself makes no sales, nor does it install any kind of electrical equipment upon the customer's premises other than directly identified with its service and meter. Appliances are shown and demonstrated, and an order from the purchaser will be received and transmitted to the manufacturer or agent of the appliance selected, without commission or charge of any kind for this service.

The New York Edison Company

January 1921

Cato's Tavern on Post Road
Between 51st and 52d Streets—1816

THE NEW YORK
PUBLIC LIBRARY
852739 A
ASTOR, LENOX AND
TILDEN FOUNDATIONS
R 1936 L

VOLUME 13 NUMBER 1

CONTENTS

The Edison Monthly

	Page
The Electrical Directory	Inside Front Cover
Editorial	2
The Guaranty Trust Company	3
Electric Vehicles on Display	6
Outdoors Indoors	6
Light Triumphant (Verse)	7
Θεραπευται	8
The Signs on Broadway	11
A Midwinter Night in Central Park	12
Furs	13
The Rainbow Trail (Verse)	16
Edison District Offices with Map	Inside Back Cover

Copyright 1921, by The New York Edison Company

The Edison Monthly
Published by
The New York Edison Company
General Offices
Irving Place and Fifteenth Street
New York City

N F Brady, President
Walter Neumuller, Secretary
Frederick Smith, Treasurer

Accustomed as we are to the old hot water bottle, the hot brick, the use of poultices, various "rubs" and so forth, it nevertheless occasions us no great mental wrench to forsake these homely old remedies and adopt curative methods pleasanter and simpler in their application and more certain in their results. The electric heating pad, the vibrator, the violet-ray apparatus, the immersion coil and the other electro-therapeutic appliances have all proved themselves valuable aids in the home sick-room.

Business may be business and the element of friendship had best perhaps not enter in, but though friendship is barred, romance can not be, and so in the history of the various industries one finds romance on every page.

From the great frozen reaches of the ice-bound North to the luxurious surroundings of a Fifth Avenue store are two of the extremes encountered in the history of the fur industry—extremes of location. From the primitive dog sledge to the modern, smoothly running electric delivery car are extremes of transportation found in this same industry and romance and interest abound at every step between these extremes.

As is the case in every tale of industry, electricity plays a major part in its unfolding. In this instance, besides providing the motive power for the transportation of the furs after they have reached New York, it also operates a great refrigerating system designed to produce arctic temperatures necessary for their proper storage.

Never, reasonably, could it be presumed that the financial section of a growing city the size of New York could indefinitely be confined within the radius of a few blocks. The very topography of Manhattan Island is an ever present obstacle against such segregation, not only of the financial section but of any of the great elements of the life of the city. Such segregation results in congested traffic conditions and an overcrowding of certain districts.

It is not to be wondered at then, New York having stretched itself a few miles further uptown, that "Wall Street" also should have moved up—even as far as the neighborhood of the Forties on Fifth Avenue. Branches of the great downtown banks have established themselves here, in many instances, as in the case of the Guaranty Trust Company, remodeling and finding offices in buildings previously devoted to totally different business enterprises. How a famous old restaurant on Fifth Avenue became the important uptown office of a great banking institution, perfectly appointed and equipped with every modern convenience, is described elsewhere in this issue.

The Guaranty Trust Company

A RECENT addition to the ever-growing number of uptown financial institutions is the new branch office of the Guaranty Trust Company at Fifth Avenue and Forty-fourth Street. Opened during the past summer, the bank is now filling an important part in meeting the financial needs of the district, and bears no little share of responsibility for the new characterization "Uptown Wall Street" which has

Photograph by The New York Edison Company

The Vaults at the Fifth Avenue Office of the Guaranty Trust Company Offer a Striking Example of the Profitable Utilization of Space Formerly Required for Private Plant Operation

been fastened upon the neighborhood adjacent to Fifth Avenue and Forty-second Street.

The New Yorker will recognize the location as that of the famous Sherry's. And indeed, if he has been out of touch with social affairs in the city for the past year or so, he is quite apt to approach the building expecting to have luncheon with a group of his former associates. His first surprise will come when he seeks the Forty-fourth Street entrance. He'll miss the liveried footman and the massive grilled doorway and if he goes as far as the inner portal he'll see—not cloak-rooms, heavily carpeted floors, impressive decorations, nor an ubiquitous head waiter—but a vast expanse of marble-walled room, with counters, plate glass partitions, low balustrades and rows of Doric columns. Instead of a corps of servitors, he'll find a staff of uniformed special policemen, and while the spirit of service will be just as much in evidence as in former days it will concern itself with his financial needs rather than with the requirements of the inner man.

In the transition from restaurant to bank the famous old building has gone through an all-embracing change—one that involved not only the rebuilding of the existing structure but the erection of new buildings on both Fifth Avenue and on Forty-fourth Street. These two new buildings match the original structure exactly. The one on Fifth Avenue is 22 by 105 feet and that on the side street is 50 by 100 feet. With these additions

The Main Floor of the New Branch Office of the Guaranty Trust Company at Forty-fourth Street and Fifth Avenue

The Safe Deposit Vaults are Protected by an Elaborate System of Wiring

the building now covers a ground area of thirty thousand square feet, while its eleven stories give it a cubical content of five million cubic feet. These changes were made from plans drawn by Cross & Cross, architects, and were executed by Todd, Irons and Robertson, builders. The electrical work was planned by Meyer, Strong & Jones and was installed by Hetzel & Buehler, electrical contractors.

From the exterior the most noticeable difference, aside from the enlargement, is the change in the large windows. Those of restaurant days have been replaced by great arches which rise two stories above the sidewalk level.

Entrance to the bank is through swinging double doors of bronze of Spanish design, beautifully wrought. The Doric columns extend the length of the banking room. Desks on the main floor are equipped with metal-shaded electric lamps and beautiful circular clusters of lamps are suspended from the ceiling.

The bank vaults occupy the basement and sub-basement. The lower level is utilized by the bank for the storage of its own cash and securities and for the safekeeping of its records. Immediately above the bank vault is the safe-deposit vault, with its ten thousand individual boxes, its anterooms and its coupon booths. The walls, floors, and ceilings of the vault consist of two feet of reinforced concrete, vertical and diagonal steel bars, and a steel armor two and one-half inches thick. Around all this is an electric protective system which includes more than five miles of wiring.

During the restaurant days the space that the vault occupies was given over to the requirements of a generating plant which supplied the electrical needs of the building. When the trust company took over the property it promptly discarded this plant as being troublesome and inefficient and arranged to secure Central Station electrical service for the building. Thus the bank gained for itself a more reliable and economical electrical service, and at the same time put to profitable use the space which the plant had occupied. The bank also replaced the hydraulic elevators with those operated by electric motors and installed a completely changed system of illumination. The electric equipment as supplied by The New York Edison Company, now consists of some six thousand lamps and eight hundred horse-power in motors.

Electric Vehicles on Display

Arrangements for an unusual electric automobile display to be held this winter are being made by The New York Edison Company. The show room of the Company at Irving Place and Fifteenth Street has been set aside for the purpose, and manufacturers of electric trucks, industrial trucks, passenger cars, and batteries and accessories have been invited to exhibit their products.

Street trucks and passenger cars will be shown during the week of January 29—February 5, while industrial trucks will hold forth during the following week. Batteries and accessories will be on display during both weeks.

Outdoors Indoors

The Metro Pictures Corporation has recently contracted with The New York Edison Company for a temporary installation approximating two thousand amperes for lighting in the Eighth Coast Defense Armory, 29 West Kingsbridge Road. This building is the largest armory in the city and is admirably adapted for the use of motion picture production. The scenes to be set up will portray living conditions in cities of England. This is probably the largest venture as yet taken in this particular field, as it has been customary to erect scenes such as these in the open air.

Electricity is saving both time and expense in the filming of motion pictures through a comparatively recent lighting appliance known as the sun ray arc. These rays so closely approximate those of daylight that studios may be illuminated and scenes taken of a nature which heretofore required outdoor settings and the accompanying annoyance occasioned by the variable disposition of the sun. Many times whole casts have been called to the scene of action only to be kept waiting until a bank of clouds should disperse. Such happenings have been the chief causes for the high expense incident to the production of big outdoor films.

As a result of developments in illuminating methods, many of the big producing companies have established permanent studios in and near New York City, a fact which seems to portend the passing of California and its much advertised outdoor studios, as the film making centre of the country.

Light Triumphant

"*Let there be light.*" And at the Word,
The primal deep of Darkness heard
Its banishment. Now, gleam by gleam,
The first fair Dawn began to stream
In rose and pearl across the sky,
To Noon's effulgent radiancy.

With Evening spread the splendor-glow
Of Sunset. And the earth below
Saw the first wonder of a Star,
Set in the firmament afar.
And Night, no more a shapeless dread,
With silver Moonlight crowned her head.

Vast Ages rolled. Man smote a spark.
And lit a torch to pierce the dark.
The glory brightened, flame by flame,
Until triumphant Science came!
Then blazed from street and storied height
A myriad Suns. "*And there was Light.*"

Frederick Moxon

Θεραπευταί

IN ancient times, on the shores of Lake Mareotis just south of Alexandria, Egypt, there lived, it is said, an ascetic sect described

by Philo Judaeus as "servants of God and physicians of the soul." Opinion among scholars differs as to whether these Therapeutae were Jews or Christian monks, but whatever their origin they devoted themselves to contemplation and interpretation of the Scriptures.

The word *Therapeutae* comes from the Greek word Θεραπευτής, therapeutes, meaning attendant or servant. In the capacity of "servants of God" these priests undoubtedly acted as physicians to the sick, as priests usually did in the early history of nations. To primitive peoples the conception of sickness and disease was associated with that of demon possession. It was the priest, therefore, who attempted to dispel the demons from the bodies of their victims, perhaps by reciting charms over the diseased parts, or by administering internal potions or external applications of healing herbs. This was the earliest form of therapeutics, that branch of medical science which has as its object the discovery and cure of diseases.

The use of remedies among ancient Egyptians eventually acquired a scientific character. Many of the medicines were of a vegetable, animal, or mineral nature, and were prescribed by the physicians always with explicit directions. The Egyptian's knowledge of hygiene was far advanced and from him others may have borrowed.

Therapeutics, in a broad and general sense, includes every possible kind of treatment. Electro-therapeutics is the use of electricity as a healing agent. In cases where the nervous system is suffering from disease, or where nerves have received local injury, this form of treatment proves itself invaluable. Warmth and stimulation may be supplied by this means to paralyzed muscles until the nerves are again in condition to resume their functions.

There are several electro-therapeutical appliances which, not confined to the sphere of the hospital and sanitarium, may form an important part of the home sick-room. Their value is being recognized more and more, due in part to the ease with which they can be used, their cleanliness and convenience, and the successful results that they bring. They are the "Therapeutae" or servants to modern health.

The electric vibrator produces, as a masseuse, a result hardly to be surpassed. The force and strength of the massaging can be regulated by a control switch on the appliance, giving the patient the desired amount of stimulation. This little physician drives away the demon Sluggishness by patting the affected parts of the body with a firm touch, thus increasing the circulation of the blood. Not only is the vibrator good for those who feel the need of massage but also for those who like it merely for the invigorating effect it produces. It fits into the lives of the sick and the well, the old and the young. The victim of rheumatism will find his muscles more limber after its daily applications. The man who finds himself stiff from a few hours of tiring exercise will exclaim with

delight over the pleasing results obtained from this little machine. He who realizes that he is not quite as spry as he used to be will wonder why he did not try the vibrator before. He begins to feel more like playing tennis with the young people or, in the chilly month of January, going skating with his grandchildren.

The violet ray apparatus on the other hand affects not only the local circulation but also the circulation of the entire body. It generates a high frequency current that increases the activities of the different organs. Chanting its little charm in a minor key it dispels the cold or catarrh germs from the afflicted patient, and relieves local congestion. An ever-ready doctor, it gives valuable treatment to those suffering with neuritis. If it is the skin that needs attention the violet ray produces a marked effect in remedying irritation and dermatosis.

The electric heating pad is a valuable asset in the sick-room. There was scarcely any item more

popular than the old-fashioned heated brick and its successor the hot water bottle, the pain-reliever and comfort-producer in nearly every case of

illness. Unfortunately the water for the bag had to be heated and renewed, a fact that took time and caused trouble. With the heating-pad this is eliminated and the soft, flexible appliance is ready for use almost immediately after being connected to a lamp socket.

The emersion heater is another electro-therapeutical appliance valuable to the sick-room. In a very short time the attendant upon a patient can produce warm or hot liquids at the desired temperature. This saves steps to the kitchen and is particularly convenient late in the night.

There is nothing better than sun, light, and warmth for destroying germs; but due to weather conditions we can not always depend upon nature to supply such a physician to us. The therapeutic lamp, therefore, has been introduced with its artificial sunlight. When applied to the body where there is congestion and pain, it gives quick relief through its stimulating and purifying treatment. The soothing rays from this lamp penetrate the skin and tissues, energizing them so that the blood circulation is increased and the vital organs are thereby forced to work as it was intended they should.

One of the larger devices is the electric bath cabinet which also radiates light and heat. The patient sits in the cabinet with only his head outside. When the incandescent lamps are lighted the body undergoes a treatment that gives splendid results.

One of the newest devices is the electric blanket, similar in appearance and size to an ordinary blanket. At first one would not be likely to realize that this tastefully colored bed cover contains a mesh-work of fine cabled magnet wire, 15,000 feet in length, but when the cord is attached to a lamp socket a uniform heat of about 100 degrees is produced.

The value of the electric blanket lies not in the fact that it cures, but that it lessens pain and suffering and keeps the body in a state of relaxation, thus aiding in the cure. Convalescents find it unusually comfortable.

And so electro-therapeutics has much to give to the world. Dispelling sickness and pain by quick and soothing means, it is ever waiting at hand in the sick-room.

Photograph by The New York Edison Company

Dashing lights, flashing lights high above the street,
Tell me where to go to play, tell me what to eat,
Tell me where to buy my gas, where to own a home,
Tell me where to go away, after I have come.

If my path is wandering, if, in fact, I slip,
If I fail to speak to you, words upon my lip,
I am merely up-to-date, lofty plans in sight;
For the things to do by day, read the signs at night.

By Daphne Greene

Photograph by The New York Edison Company

Photograph by C R Albin

A Midwinter Night in Central Park

Furs

VALLEYS hung cradled between the mountains like furrows in the palm of God's hand. Streams pounded in foaming rage against their barriers of ice, and, far up on the hillsides, ancient trees, their limbs stretched out as though to shield the earth from the cold, leaden clouds, held dominant empery. Over all brooded an oppressive stillness. A white, tangible silence, hushed and ghostly, lay heavy on peak and glen. The Northland, implacably vast, stared with challenging, merciless eyes across its borders.

In a hollow, deep and shadowy, a rotted pine stump showed its top above the surface of the snow, and stood a rigid guardian over the prisoner fettered nearby. The prisoner was a black fox who, too late, had sensed the danger that lurked beneath a thin-shaven part of the frozen crust. Jaws of steel had sprung to clamp themselves on one foreleg with a sickening crunch, and maddened by pain the fox had writhed about, snapping and snarling until exhausted. Now with the calmness of despair which comes only to the dwellers of the wild, the animal was awaiting the blow from a club in the hands of some exultant trapper which would spell release.

* * *

Soon the pelt, with hundreds of others, began the long slow journey from the frozen north to its destination in some furrier's work-shop, and ultimately to the shoulders of the luxury loving East. By dog sledge, canoe, river steamer, train, and finally by motor truck is the long trip accomplished.

Strange to say that electricity, which performs such an important function in the final stages of marketing furs, has no part in the process until the city is actually reached. The traps, the curing, and the cross-country trips in the wilds are just as primitive today, as they were a hundred years ago. On the other hand, in the cutting and manufacture of fur garments, in their storage, in merchandizing them, and finally in delivering them, electricity plays an increasingly important part. Just how these various uses of electricity are employed is very interestingly illustrated in the establishment of H Jaeckel & Sons, Inc, at 546 Fifth Avenue. A showroom and shop where unlimited resources have been subtly welded with good taste attests the success of the enterprise.

The Many Uses of Electricity

Here one is quite apt to find an electric truck at the door; within, the skill of the illuminating engineer and the decorator is seen at its best; behind the scenes, there is the whirr of electric sewing machines, and in the cutting rooms, electric cutters are used to trim the many pieces, while they are matched under illumination that corresponds to daylight. In the great storage rooms, the valuable furs find themselves in the cold of their native north—thanks again to modern refrigerating apparatus and electric motors.

Electric trucks first appeared in the transportation department of H Jaeckel & Sons, Inc, twelve years ago, and since then the firm has used

no other type of car for its city deliveries. During the early summer months when furs must be collected for storage, the electric trucks are busy making the trip from the customers' homes to the cold storage vaults. Besides being sent to collect furs, the electrics are also used to carry new purchases to their destinations, or to make fall deliveries of goods stored over the summer. Runs are made easily, surely, and at a moment's notice, while the all-important factor of cleanliness comes into play to great advantage, for electrics have no unpleasant or penetrating odors which might ruin expensive garments. That trucks of the storage battery type are eminently satisfactory and economical is evidenced by actual figures which show a saving of nearly fifty per cent over the cost of operation of the one gas car which the company employs for its long distance haulage. So satisfactory has this electric service been that the company has just purchased another vehicle.

Although with transportation by electric vehicle electricity first makes its appearance in the fur industry, it does not confine itself to this class of work alone. For the cold-storage vault there are two twenty-horse-power motors which furnish the energy for the two ten-ton ice machines. Stored furs must be kept in low temperatures and at the company's plant the thermometer registers from eighteen degrees above zero and to a maxi-

The Show Room of H Jaeckel and Sons Inc is Beautifully Appointed and Lighted

Photograph by The New York Edison Company

Loading One of the Electrics for the Morning Deliveries

mum of twenty-seven degrees. Many thousands of dollars' worth of garments are hung in orderly array on the racks around the storage room.

The direct expansion method is used in the cold-storage vaults, and like most large refrigerating plants ammonia pipes are the main feature of the equipment. The vaults of this company are so constructed as to retard air movement as much as possible. This is done so that the atmosphere may not be disturbed by upward air currents which might tend to curl the longer-haired, expensive furs. Such elaborate care is more than necessary since the garments placed in summer storage at the Jaeckel vaults range in price all the way up to $75,000 each.

In the manufacture of these garments, electricity again comes into play. The Jaeckel shop possesses fifty electrically driven sewing machines whose combined rating is ten horse-power. An astonishing amount of work is performed by these contrivances and the finished product is as finely joined as those sewn by hand. Electrical energy is, of course, employed for running the three elevators which give access to every floor of the building, fifteen horse-power motors being the size in use.

Protection from fire is furnished by a sprinkler system which embraces not only the storage vaults, but the entire building as well. A ten-horse-power motor maintains proper pressure, so that danger is greatly minimized.

A unique feature of the establishment is the attention devoted to the lighting arrangements. Six skylights

have been placed on the roof of the seven story structure to facilitate the accurate sorting and matching of pelts, while down in the palatial showrooms, where daylight is not at all times available, a novel method was devised to fill the need. When the ceilings were built, the colors to be used were tested by illuminating engineers, and C 2 lamps with indirect reflectors were finally specified. Through this care, and the use of these lamps, a close substitute for pure daylight has been obtained.

Thus it will be seen that this fur house has thoroughly recognized and applied electricity in no less than six distinct ways: trucks, sewing machines, lighting system, refrigeration, fire protection, and elevators, and in each case has found it economical, efficient and always ready.

The Rainbow Trail

The times have changed. Why cling today
To a name so false as the Great White Way?
What once was a street that twinkled and gleamed
Like a path where a million moon-motes streamed
Looks now like the course of a comet splashed
With all of the jewels that ever flashed
In the crowns of caliphs, sultans and czars.
The hanging gardens of all the stars,
In spite of their myriad lanterns, pale
Beside the beams from our Rainbow Trail.

Manhattan has borrowed the Northern Lights
To give us butterfly-brimming nights,
And phosphorescence from soft South Seas
To warm our eyes when the north winds freeze.
Here East greets West; the gold that the sun
Tosses to the sky, his day's work done
Joins the pearls he gathers when darkness is gone:
Broadway's the meeting of sunset and dawn.
Aladdin, though he rubbed for a year, would fail
To conjure a scene like our Rainbow Trail.

Richard Butler Glaenzer

District Offices of The New York Edison Company

Contract and Inspection Department

Broadway District

Office at 424 Broadway, D T Brown, Manager; Telephone, Canal 8600. Bounderies: The Broadway District includes the territory south of Christopher and Eighth Streets, west of the Bowery, and south of Catherine Street.

Norfolk Street District

Norfolk Street Office at 20 Norfolk Street, L P Bendall, Manager; Telephone, Orchard 4261. Boundaries: The Norfolk Street District includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catherine Street.

Irving Place District

Office at 10 Irving Place, S F Fahnestock, Manager; Telephone, Stuyvesant 5600, Extension 405. Boundaries: The Irving Place District includes the territory between and including Eighth Street and Twenty-eighth Street from the East to North Rivers.

Forty second Street District

Office at 124 West 42nd Street, W M Kerr, Manager; Telephone, Bryant 5262, Extension 98. Boundaries: The Forty-second Street District includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to the North Rivers.

Eighty-sixth Street District

Office at 151 East 86th Street, H S McGrath, Manager; Telephone, Lenox 7780. Boundaries: The Eighty-sixth Street District includes the territory north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park West.

One Hundred and Twenty-fifth Street District

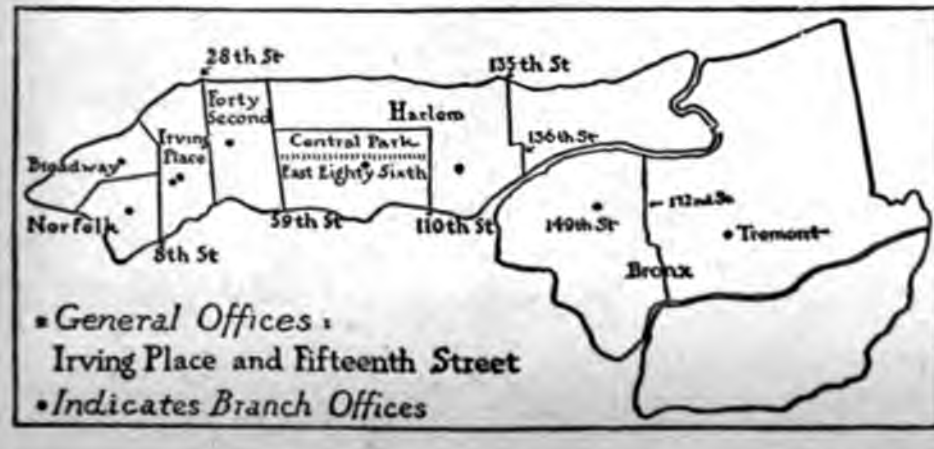
Office at 15 East 125th Street, William J Mears, Manager; Telephone, Harlem 4020. Boundaries: The One Hundred and Twenty-fifth Street District includes the territory bounded by the North River, Fifty-ninth Street, Central Park West, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St. Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St. Nicholas Avenue.

Bronx (One Hundred and Forty-ninth Street District)

Office at 362 East 149th Street, William A Ruenzler, Manager; Telephone, Melrose 9900. Boundaries: All territory lying between the Harlem and Bronx Rivers and between One Hundred and Thirty-second Street and East One Hundred and Seventy-second Street. The dividing number between the One Hundred and Forty-ninth Street Office and the Tremont Avenue Office, on all avenues with the exception of Third and Park Avenues, is 1499. On Third and Park Avenues, however, the dividing number is 3699.

Bronx (Tremont District)

Office at Tremont and Monterey Avenues, Albert Goldman, Assistant General Commercial Manager, Bronx District; Telephone Tremont 6900, Extension 225; Richard Goff, Manager, Tremont Avenue Office; Telephone, Tremont 6900, Extension 100. Boundaries: The territory covered by the Tremont Office extends from approximately One Hundred and Seventy-second Street, north to Yonkers City line; all territory lying between the Harlem River and Two Hundred and Twenty-fifth Street, and the Hudson River from Two Hundred and Twenty-fifth Street to Yonkers on the West, and the Bronx River on the East, including Woodlawn, Spuyten Duyvil, Riverdale and Mount Saint Vincent Districts.



The EDISON Monthly

FEBRUARY 1921

THE NEW YORK EDISON COMPANY
Irving Place & 15th Street, N.Y.

The Electrical Directory
and the Edison Show-rooms

THE very great increase in the number of names listed, and consequently the broadened scope and added importance of The Electrical Directory make it necessary to issue it as a separate publication rather than as a department of THE EDISON MONTHLY. The Directory in its new form will be distributed partly by mail and partly through the offices of The New York Edison Company. It will be sent without charge to anyone upon request.

The Electrical Directory is published for the purpose of rendering the greatest possible assistance to those desiring to use Edison Service for any purpose. Its lists include the names of dealers in every form of electric appliance, manufacturers or their agents, and contractors who do electrical work in the territory served by this Company. So far as is possible, the accuracy of each name and address is carefully verified.

Another object of the Directory is to give to every manufacturer, agent, dealer, and contractor an equal chance with those desiring to purchase devices or to have equipment made.

The Company desires to encourage the establishment of the largest possible number of dealers in electrical devices, appliances, and incandescent lamps, and of independent electric contractors who do satisfactory work at fair prices. It is believed that this policy is in keeping with the public interest, and is aided through a directory of this nature.

Each manufacturer or agent has equal right to free space, electric current and demonstration in the various show-rooms of the Company, and equal endorsement by the Company's representatives when talking with prospective purchasers. The Company's representatives are forbidden to recommend any particular device as compared with another, and final choice in the purchase must rest with the purchaser.

It might be added that the Company itself makes no sales, nor does it install any kind of electrical equipment upon the customer's premises other than directly identified with its service and meter. Appliances are shown and demonstrated, and an order from the purchaser will be received and transmitted to the manufacturer or agent of the appliance selected, without commission or charge of any kind for this service.

The New York Edison Company

When this picture was taken, just before the Civil War, the world little realized the debt it would owe to this smiling boy

Thomas Alva Edison

whose 74th birthday will be celebrated February 11, 1921

Supplement to The Edison Monthly
February, 1921

February 1921

The Old Stone Bridge at Broadway and Canal Street, 1816

VOLUME 13

CONTENTS

NUMBER 2

The Edison Monthly

	Page
The Electrical Directory	Inside Front Cover
Editorial	18
Ship Repairing	19
Scones and Shortbread	23
The Munson Building	26
Raising Beans by Electricity	26
The Tower of Light (Verse)	28
Paterson Fire Department	29
The Electric Vehicle Exhibit	32
Edison District Offices with Map	Inside Back Cover

Copyright 1921, by The New York Edison Company

The Edison Monthly

Published by

The New York Edison Company

General Offices

Irving Place and Fifteenth Street

New York City

N F BRADY, President
WALTER NEUMULLER, Secretary
FREDERICK SMITH, Treasurer

As subject for conversation there has never been suggested a more heterogeneous list than that proposed by the Walrus when he said, "The time has come . . . to talk of many things; of shoes and ships and sealing wax, of cabbages and kings, and why the sea is boiling hot and whether pigs have wings." But as heterogeneous as this list may be, it is no more so than the list of subjects suggested by the titles in this issue of a magazine devoted to the varied uses of electricity.

It is a far cry from the quiet baking of shortbread to the excitement occasioned by a huge piece of fire apparatus clanging through the streets answering an alarm. And the distance is again great between such a spectacle and that of a huge ship drawn up into dry dock for inspection and repairs. Yet all of these are related through a common *modus operandi.*

An electrically equipped repair yard is the haven of refuge for ships in or near the harbor of New York. Huge electrically operated drydocks are the "beds" for "patients" particularly sick and every device is at hand to make repairs rapidly and efficiently. So much for the ships.

As for the scones, well, there are scones and scones, just as there is coffee and coffee; the difference lying in the quality and the method of preparation.

To make scones properly two things are necessary; a truly Scotch person and an electric oven. It was "Bunty" who discovered the necessity of the electric oven for the perfect baking of scones and shortbread. The truly Scotch person is found, of course, in "Bunty" herself. The combination is irresistible.

A conclusive example of the high regard in which the electric truck is held, is furnished by the Paterson Fire Department, which proudly boasts of twenty-two pieces of electrically operated fire apparatus.

The advantages of electricity as a motive power are many, particularly when applied to vehicles required to operate all the time at an efficiency of one hundred per cent. Wherever electricity is employed better work is performed, because fatiguing labor is reduced to a minimum while production and efficiency are raised to a maximum.

Ship repairing, baking, and operating fire apparatus are three decidedly different fields for the application of electricity; to these may be added the decorative use of electricity shown in the poem "The Tower of Light," electricity used to promote vegetable growth, and the many applications of electricity in big buildings. That all of these varied fields should be discussed in one issue of the Monthly convincingly proves how completely electricity is covering every field of human endeavor.

Ship Repairing

WHILE American ship-builders are doing their part in producing the ships; while American business interests are establishing trade routes to all parts of the world; and while American manufacturers and importers are building up a vast foreign business, the ship-repair yards of the country are performing a function without which the whole structure of foreign commerce would collapse. While all these other interests unite to "put the flag upon the high-seas" it is the ship-repair yard that keeps it there. A homely parallel is seen in the automobile famous American manufacturers are building thousands of cars, but without the garage and its force of skilled mechanics even the best of machines would soon disappear from our highways.

Among all the great industries of New York, one of the most important is that of repairing and rebuilding ships. There are yards which specialize in the repair of small boats and pleasure craft, yards which keep the harbor vessels in condition, the New York Navy Yard in Brooklyn is the most important naval base in the country, while along the South

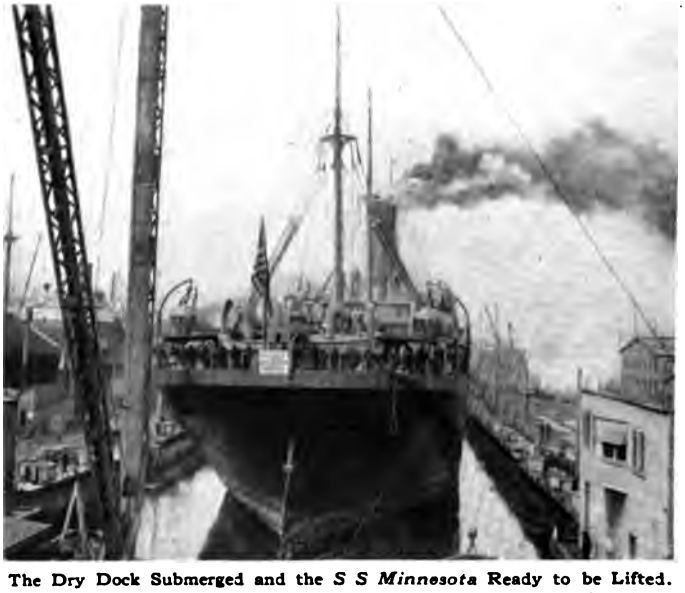
The Busy Waterfront of the Morse Dry Dock and Repair Company in Brooklyn. As Shown in the Picture the Dry Dock is Often Used to Lift Two Ships at Once. The Control Station From Which the Electric Pumps are Operated is Shown in the Right Foreground

Brooklyn waterfront and on the Hudson river there are the several big plants which recondition the ships of our mercantile marine. In these yards may be found vessels of every size and type, and hailing from every port in the world—all, for the time being, undergoing repairs. On one vessel the steam fitters may be installing new equipment in the engine room; in another part of the yard a ship stands high in a floating dry dock while painters clean and paint her hull; in mid-stream a fleet of puffing tugs labors with a great freighter whose bow has been stove in in a collision.

Interest of the shipping and electrical world, as well as that of the winter-resort traveling public, has focused itself this winter on the *S S Cuba,* plying between Jacksonville, Florida and Havana. Travelers are interested because the vessel offers a new route to the Cuban capital; shipping men and electrical engineers are interested because the vessel is the first passenger craft to be operated entirely by electricity. Additional interest is due to the fact that what is now a luxuriously equipped, speedy, floating palace, once lay at the bottom of Chesapeake Bay an abandoned hulk. She was raised when the war made such insistent demands for more vessels, and was on her way north when hostilities ceased.

The transition from a rusted, battered hulk to a passenger steamer of the most modern type indicates the capacity and resources of New York's ship-yards, for the work was done by a local company, the Morse Dry Dock and Repair Company, in its South Brooklyn plant. Additional interest attaches to this particular company for the reason that all through the vast plant, the work is carried on by means of electric motors, and that current for these motors is supplied from the mains of The Brooklyn Edison Company. In other words, with the best engineering skill available, this shipyard finds it more satisfactory and economical to purchase current from the central station than to operate its own generating plant.

The Morse yard extends for several



The Dry Dock Submerged and the *S S Minnesota* Ready to be Lifted. This Huge Steamer Was Raised in Twenty-five Minutes by the Powerful Electric Pumps

The Bull Riveting Machine Drives the Rivets Home by Pressure Rather Than by Blows. The Electric Rivet Heater is Shown in the Foreground

blocks along the waterfront, with a main entrance at Fifty-sixth Street and First Avenue. It has very aptly been called a city within itself, for not only does it have its several broad well paved thoroughfares, and its departments for the production of practically every item that goes into ship repairing, but it has a fire department, a police department, a street lighting system, a fleet of tugboats, a hospital, and even a band organized by the employees. A printing plant produces all the company's printed matter.

From the view point of the spectacular there is probably no single operation in a shipyard that has quite the appeal as the dry-docking of a huge vessel. The docks are of the floating type, and raising a vessel means not only warping her into the dock but raising both the dock and the hull. There are two such dry docks at the Morse Yard. Dock Number 2 with a capacity of 30,000 tons and built in six sections is the largest of the kind in the world. Ships up to 700 feet in length can be accommodated, while for smaller vessels the sections can be operated separately. Some impressive records have been made by this dock. The *Minnesota*, the world's largest cargo ship, was raised in twenty-five minutes; the American liner *New York* was out of the water in eighteen minutes; and the *Powhatan*, now the *Cuba*, was raised in twenty-two minutes.

The whole secret of speed in dry-docking is in the pumps, and those at the Morse yard are operated by electric motors.

For lowering the dock to receive a ship, valves are opened and the water flows in. Then the ship is warped in, and when she is over the keel blocks, the pumps take up their task of forcing the water out of the dock bulkheads and the dock and vessel rise together.

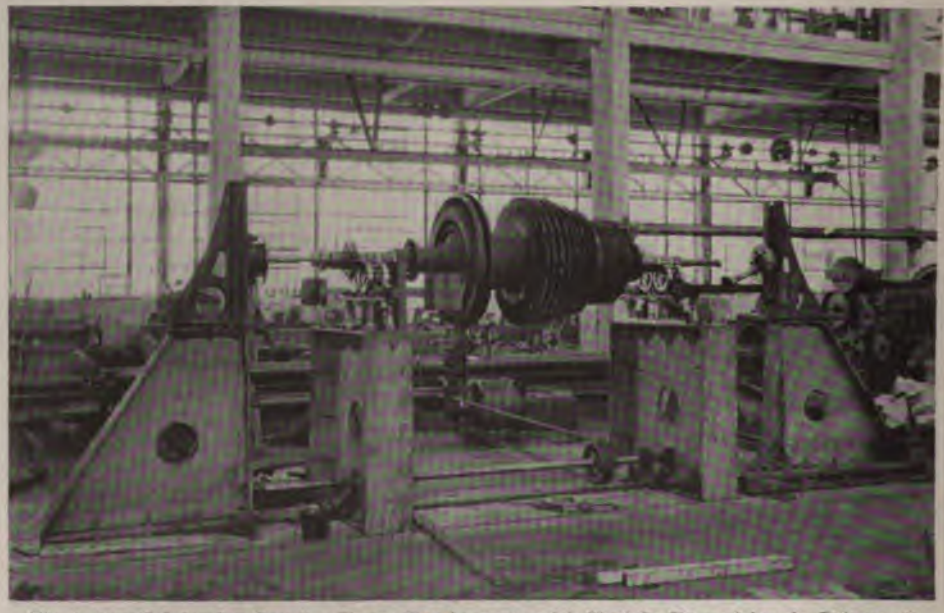
While the docking operation may

The Sharp Clipper Bow of the *S S New York*

be the first to attract the visitor, the other departments are just as important to the work of the yard. In the plate shop one will find a powerful overhead electric crane that carries heavy sheets of steel to the various machines; a rattle, like musketry fire, is nothing more alarming than the great numbers of rivet hammers and drills; a great jawed machine spends its whole day biting through steel plates with no more effort than a kindergarten youngster exerts in cutting out a cardboard city. The rolling machine, an electric mangle, and electric rivet heaters are important parts of the plate shop. The machine shop, in addition to lathes, grinders, drills, planers, and slotters has an Ackamoff Balancing Gear for determining the static and dynamic balance of turbines or other rotating machinery. The forge-shop and blacksmith shop all use electricity in various ways, while the woodworking department and pattern shop have equally complete equipment.

The importance of welding in repairing ships was conclusively shown in the restoration of the German liners during the war. Therefore it is not surprising to find the electric and acetylene welding department forming another of the important links in the modern shipyard.

Throughout all the vast and complicated system of ship work there is hardly a duty which is not being performed by electricity. Electricity as a dependable power is seen in its extensive use throughout the Morse yards; Central Station Service as a dependable source for a dependable power is seen in the use of current from the lines of the local electric light and power company.



The Ackamoff Balancing Gear is a Recent Development and is Used for Determining the Balance of Turbines and Other Rotating Parts

Scones and Shortbread

OVER the entrance to 21 East 47th Street there swings a simply worded sign which informs passersby of the presence of The Scotch Tea Room. Those unfamiliar with real Scotch cookery might pause curiously before the window filled with dainties of a kind that they had never tasted; but those whose hearts beat just a little faster at the sight of "kilties," and the skirl of bagpipes, would not hesitate very long before walking right into the little tea room itself.

Directly opposite the doorway they would see behind the panels of glass in the tall, slender cabinet that occupies the corner, a tempting assortment of Scotch shortbread and pastries, the like of which could be created only under the dexterous fingers of a true Scotchman himself. Long loaves of bread, piles of triangular oatcakes, and scones suggestive of tea and marmalade, add interest to the collection.

"Bunty," the Hostess

"Bunty," as she has often been called, is the hostess and manager of this unique little place. She is ably assisted by her brawny son, one of the many brave lads who donned his kilts and rushed to the front with Canada's fighters. While he was in France his mother carried on her work alone, doing a great deal of the cooking herself, and pluckily carrying her burdens. Many a soldier and sailor lad she received in her home and for dinner served hot mutton pies and shortbread. A token from "The Loons o' the *S S Andes*" now hangs in a place of honor—a picture of their ship from the boys whom "Bunty" entertained.

"Bunty" was born in Ilvine, Ayrshire, Scotland, a neighborly distance from Alloway, the birthplace of Robert Burns. For many years, however, she has been in the United States, for which she has a deep affection. The Scotch accent that she keeps, the Scotch atmosphere that she has brought to her tea room, the real Scotch food that tastes as though it had come directly from a thatch-roofed home in the Scotch Highlands, attract the lads and lassies of Scotch descent, as well as hundreds of others, to her tables.

While you are waiting for the luncheon of home cooked, real Scotch food to be brought by a pretty little waitress of this unusual shop, your lips begin to form the words of the beloved "Robbie" Burns' grace:

"Some hae meat and canna eat,
And some would eat that want it,
But we hae meat and we can eat,
Sae let the Lord be thankit."

Then you raise your eyes and examine the walls about you. They are hung with portraits and reproductions of familiar and popular paintings. A few pieces of old fashioned pottery and copper ware next catch your attention. Suddenly you behold laughing down at you the autographed photograph of a kilted gentleman who leans jauntily on a crooked cane and saucily winks his eyes and purses his mouth as though he were about to sing.

A bowl of piping hot Scotch broth is set before you and if this is your first visit you begin to wish that you had discovered The Scotch Tea Room long ago. You have heard about mutton pies which, if they are honestly Scotch, cannot be made satisfactorily by any other hand than that of a Scotchman. Mutton pie you must have, then, and mutton pie it is that you order. Or, if you prefer roast beef with Yorkshire pudding you will find that in the future your appetite will be sharpened at the mere mention of the deliciously cooked meat.

While you are finishing the main course of your luncheon and are awaiting your dessert, "Bunty" approaches your table and greets you with a smile.

"Do you like our shortbread?" she asks, knowing all the time just what you are going to answer. Of course you smile back and assure her emphatically that you do. Then you suggest that it would be nice for you to take home some of it, as well as some oatcakes, which suggestion results in the enclosure of those delicacies in a neat paper bag.

Not quite ten years ago "Bunty" and her son made the initial opening of their tea room. For the past four years it has been located on East 47th Street in a neighborhood convenient to many of her guests who are continually passing in and out of the city. Not only are there the usual regular customers, but also those who are transients. Once they have partaken of one of "Bunty's" dinners they always return and with them come friends whose other friends in turn pass along the word about mutton pies and shortbread. Among them are celebrities who are attracted here by the wide-spread reputation of The Scotch Tea Room.

At one time "Bunty" and her son did all their own baking. At first this was not very difficult; but as their trade grew and their customers increased in number they found that

The Scotch Tea Room Which is Presided Over by "Bunty" Whose Scones and Shortbread are Famous

The Electric Oven in the Tea Room Kitchen

they were becoming handicapped. The cooking facilities in the kitchen in back of the little restaurant were not extensive enough. The baking could not be done at the same time with the cooking and roasting of meats. And so "Bunty" was obliged to do her baking at night.

When you have attended to a thousand and one things that are bound to arise during the day in connection with the running of a tea room, and have presided over it as hostess as well, you find that spending the night baking in the kitchen is not a form of relaxation. The two bakers decided that outside help was necessary; but he must be a Scotchman! It happened that just the right person found his way to their door.

Thus, for a little time they managed to get along, until at last they had to admit that once more something must be done to alleviate matters. M[illegible]ies are a feature of Scotland, and a Scotch restaurant without mutton pies would be worse than a doughnut without a hole. Yet in order to supply the pies, not to mention the shortbread, the scones, the oatcakes, all of which must be carefully baked, and baked just so, there must be enough room in the ovens and there must be the right kind of ovens.

"Bunty" and her son put their heads together and turned their eyes toward an electric oven, one that would have a large capacity. Apparently it did not take them long, with their keen insight, to discover that this would be the best and most efficient means of adjusting their problem.

To-day there is in use an electric bake-oven, one with a capacity of thirty two-pound loaves. In this all the pastry baking is done. Scotch shortbread, an almost magically concocted mixture of flour, butter, and sugar, when kneaded smoothly together, becomes a deliciously crisp delicacy after a short period within the confines of the electric oven.

The temperature of the oven can be maintained at about six hundred degrees with a running current consumption of about four kilowatts. It is in use during a good part of the day and is found to give efficient and valuable service, doing quicker work and being more dependable than some of the older ovens that have been used.

A luncheon or dinner eaten in The Scotch Tea Room, some pastry taken home to be eaten after the theatre, a chat with "Bunty," any of these makes you feel that you must return again to one of the most "individual sp[illegible] in town."

The Munson Building

THERE are always individual points of interest in connection with new buildings in this city which, set down in simple statement form, characterizes the structure as clearly as we characterize a person when we describe his particular personal traits and characteristics to a stranger.

The new office building being erected by the Munson Steamship Company on Wall Street for example, by its very location conveys an impression of dignity and trustworthiness especially desirable in a building devoted to modern business. Its height of twenty-five stories is conservative in comparison with some of the giant skyscrapers, but nevertheless represents 250,000 square feet of rental space. This is accounted for by the fact that the Munson Building will have the third largest frontage on Wall Street.

The architect, Mr Kenneth Murchison, has designed a simple and artistic structure, relying on the materials used so to harmonize with the general design of the building as to present a final effect of combined beauty and strength. Limestone with bright terra cotta trimmings will be used for all exterior work. The George A Fuller Company is the general contractor for the building.

There are certain conditions which an office building must meet with before it can be included in the class generally known as modern. Among these conditions are proper ventilation, elevator service, lighting and fire protection. Since electricity is the primary operative force for these essential requirements, it is absolutely necessary that the electrical supply be constant, reliable, able to meet a sudden emergency, and at the same time economical.

How best to obtain such service is always very carefully investigated by the owners of a proposed new building. In the case of the Munson Building a private plant was first suggested. Operating costs were estimated and found to total $55,520 a year.

Economy of Central Station Service

Engineers of The New York Edison Company were next consulted. A report was carefully prepared covering the electrical requirements of the building resulting in figures showing that $14,811 a year could be saved by using Central Station Service. The decision to sign contracts with The New York Edison Company besides assuring a reliable supply of electric current, released for other and infinitely more practical uses, a large portion of the basement of the building which otherwise would have been occupied by the private generating plant.

Raising Beans by Electricity

According to the *Sun* a seed store on Barclay Street is making the experiment of raising beans by the aid of electricity. A blue electric light is kept burning day and night in front of the box in which the beans are planted. The temperature of the show window in which the experiment is being conducted is kept at about eighty degrees.

The beans are already a couple of inches above the soil.

Kenneth Murchison, Architect

The New Office Building of the Munson Steamship Company Now in Course of Construction on Wall Street

THE TOWER OF LIGHT

A wondrous pile—known wide throughout the land—
Towering aloft in its majestic height
From out the city's heart, within the sight
Of millions, who, by day, scarce mindful stand!

With break of dusk descends a fairy band,
And lo, the spire is bathed in pulsing light
From source unseen. Clear white upon the night
It bursts,—as if a gleam from genii hand.

Its perfect beauty reaching every eye
With far-flung welcome from our land, to one
And all who come from out the East,—with none
To speak but praise. This marvel, hung on high
As if suspended from some depth of sky,
Yet product all of earthly work well done.

Norman B Hickox

Paterson Fire Department

A COMPLETELY motorized fire department—the largest in the state and one of the first in the country—is the source of a great deal of pride on the part of the citizens of Paterson, New Jersey. Additional interest is due to the fact that the motorization was accomplished through the conversion of horse-drawn trucks to automobiles, and further, that the apparatus is electrically driven. As a result of these changes Paterson now has speedy and dependable fire equipment, economy of operation is assured, because electrics can be operated at a lower cost than any other type; and because it was possible to convert horse vehicles into motors, the city avoided the waste of scrapping apparatus which though old, was still good for many years of service.

The importance of adequate fire protection for a city of the industrial importance of this silk manufacturing centre, with its great mill districts, its large foreign population, its many hilly streets, and a residential district where the houses are, as a rule, of frame construction, need hardly be commented upon here.

The Paterson Fire Department consists of fifteen companies and the electric apparatus includes nine engines, ten combination wagons, and three ladder trucks. These are stationed at strategic points throughout the city and the headquarters building is on Van Houten Street. The garage and repair shop of the department are on the ground floor of this building. Executive offices, dormitories, a social hall, and handball courts are on the upper floors. The headquarters building was erected after the installation of automobiles was decided upon and consequently was designed especially to provide garage facilities. The other buildings, however, were remodeled, the changes from stables to garages being made when the vehicles themselves were being rebuilt. The work consisted principally of installing equipment for charging the storage batteries and such machine shop facilities as were needed for making the routine adjustments to the fire apparatus. The charging outlets were suspended from the ceiling in such a way that two batteries could be charged from the same plug.

First Electrics in 1917

The electrification of the Department began in 1917 after an unsatisfactory experience with gasoline drive. Five pieces of electrical apparatus were purchased from the Commercial Truck Company. These were Engine Number One and its Combination Wagon and Engine and Wagon Number Five and Truck Number Two. Standard fire fighting equipment was mounted on specially designed electric chassis and so satisfactory did they prove that complete electrification was decided upon. While the first pieces were built as electrics, the balance were converted by removing the gasoline drive then in use, and installing electric drive. Thus, much of the equipment, has undergone three revolutionary

changes: as built originally it was drawn by horses; later gasoline tractors replaced the horses, and finally the electric motors and storage batteries were installed.

The method of changing the apparatus was in itself interesting. In the case of the familiar engine, all the running gear forward of the gooseneck was removed, and channel beams, long enough and heavy enough to carry the storage batteries, the chauffeur's seat, and the driving and steering apparatus, were riveted on. The rear wheels, the boiler, and the pumping apparatus were not touched. In changing the ladder trucks the frame was extended to provide place for the driving mechanism, the battery box was suspended under the frame and just forward of the rear wheels, and an entirely new set of wheels was mounted, each wheel having its individual motor. A similar lengthening and strengthening of the frame and the installation of motors for each of the rear wheels accomplished the same result for the combination wagons. Visitors to the New York Electrical Show of 1919 will recall the combination wagon which was exhibited. This was one of the Paterson vehicles and was on its way from Philadelphia, where the Commercial Truck Company had made the changes, when the Paterson officials consented to its stopping over in New York.

By 1919, sixteen of the twenty-five pieces of apparatus had been changed to electric, and by the end of 1920 only three gasoline vehicles remained. The speed of electric apparatus in reaching fires is strikingly shown in the annual report of 1919, the last year for which complete figures are available. During 1919, the department responded to 511 alarms and reached the fires so promptly that in only four cases did the blaze extend beyond the original building. The damage in the most disastrous fire of the year amounted to only $209,000. The average loss in the next four fires was less than $50,000 while the average loss in all fires, including the big ones was less than $900.

Photograph by The New York Edison Company

This Hose Cart and Chemical Engine, Part of the Apparatus of Engine Company Number One, Is Equipped With Four Electric Motors, One for Each Wheel. This is the Vehicle That Was Used in the Hill Climbing Tests

Trials designed to show the fitness

of electric trucks for fire department work were conducted recently by Thomas Coyle, Chief of the Paterson Fire Department. One of the combination chemical trucks, weighing seven tons, was employed for the purpose, and heads of the fire departments of neighboring cities, including New York, as well as many of those interested in the electric vehicle industry, were present.

Three hills were negotiated. The first, on Temple Street, had a grade of fourteen per cent and was three blocks long but the truck climbed the distance in one minute and fifteen seconds. The second grade was the Cliff Street incline of seventeen per cent which was achieved in the running time of sixty-two seconds. Not only did the electric climb from a standing start, but it stopped in the middle of the hill and started again without any kind of assistance. The third attempt was made over the Haledon Avenue course of nine blocks with an eight per cent grade and the climb was completed in the astonishingly short time of two minutes and two seconds. A speed of thirty-four miles per hour was maintained on the level and at no time was any difficulty or hindrance experienced.

Photograph by The New York Edison Company

Although Electric Motors Furnish the Power and Storage Batteries the Energy, the Steam Pumping Equipment of the Days of Horses Still Remains to Lend a Touch of the Picturesque to Modern Fire Apparatus

In reply to a question regarding the ability of the electric trucks to proceed under adverse weather conditions Chief Coyle made the statement that "If electric trucks could not get through the winter snows nothing could" and that he and his associates believed that "the electric trucks are the most reliable, least expensive and best type of vehicle for fire department usage." Added to this testimony is that of Captain William H Ward who is in charge of the extensive workshop of the Central Fire Headquarters. Captain Ward said that the labors of his department had "decreased nearly seventy per cent since the introduction of electric trucks three years ago," and that "except when they smashed into trees, not one of the electrics has ever been out of service for as long as twenty-four hours."

In fact there are now so few repairs called for, that Captain Ward has reduced his force of mechanics to one

Photograph by The New York Edison Company

Ladder Truck Number Two of the Paterson Fire Department Pulling Out of Central Fire Headquarters Van Houten Street. Each Wheel Has Its Individual Motor

man, sending the rest back to active duty as firemen. Under this arrangement the Captain does practically all of the repair work on apparatus while his "force" has kept busy during the fall and winter repairing the roofs of the engine houses.

Other cities which are now operating electrically driven apparatus are Camden, N J; Philadelphia, Pa; Springfield, Mass.; Brooklyn, New York; Grand Rapids, Mich; New Bedford, Mass and Newark, N J. The story of these installations will be told in greater detail in a subsequent issue of the Edison Monthly.

The Electric Vehicle Exhibit

Electric vehicles, which are proving such a dominant factor in reducing transportation costs, and solving delivery problems, will be shown in a special exhibit at the Edison Show Room, Irving Place and Fifteenth Street, during the two weeks beginning January 29th.

Street trucks, passenger cars and accessories will be exhibited from January 29 to February 5, while the remaining days will be devoted to industrial trucks and accessories.

The Electric Vehicle investment in New York now exceeds $22,000,000 and of the cars this represents, two hundred and fifty are five years old and five are more than twenty-one years old. These cars for all their years of service are still at work and daily demonstrating their superiority over other makes of cars.

Electric passenger cars are enjoying an ever increasing popularity as more people learn of their advantages, by no means the least of which being their very low cost of operation. This is particularly the case in New York City where The Electric Garage at 62nd Street and Central Park West will take complete charge of a passenger vehicle.

District Offices of The New York Edison Company

Contract and Inspection Department

Broadway District

Office at 424 Broadway, D T Brown, Manager; Telephone, Canal 8600. Bounderies: The Broadway District includes the territory south of Christopher and Eighth Streets, west of the Bowery, and south of Catherine Street.

Norfolk Street District

Norfolk Street Office at 20 Norfolk Street, L P Bendall, Manager; Telephone, Orchard 4261. Boundaries: The Norfolk Street District includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catherine Street.

Irving Place District

Office at 10 Irving Place, S F Fahnestock, Manager; Telephone, Stuyvesant 5600, Extension 405. Boundaries: The Irving Place District includes the territory between and including Eighth Street and Twenty-eighth Street from the East to North Rivers.

Forty second Street District

Office at 124 West 42nd Street, W M Kerr, Manager; Telephone, Bryant 5262, Extension 98. Boundaries: The Forty-second Street District includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to the North Rivers.

Eighty sixth Street District

Office at 151 East 86th Street, H S McGrath, Manager; Telephone, Lenox 7780. Boundaries: The Eighty-sixth Street District includes the territory north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park West.

One Hundred and Twenty fifth Street District

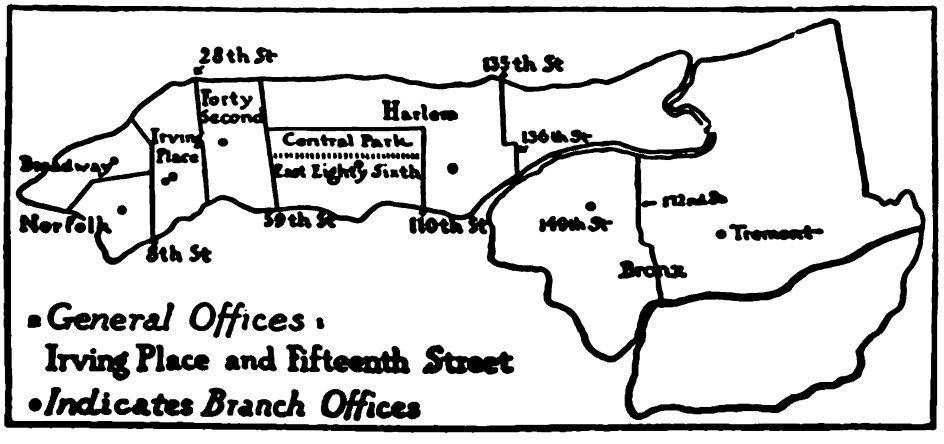
Office at 15 East 125th Street, William J Meara, Manager; Telephone, Harlem 4020. Boundaries: The One Hundred and Twenty-fifth Street District includes the territory bounded by the North River, Fifty-ninth Street, Central Park West, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St. Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St. Nicholas Avenue.

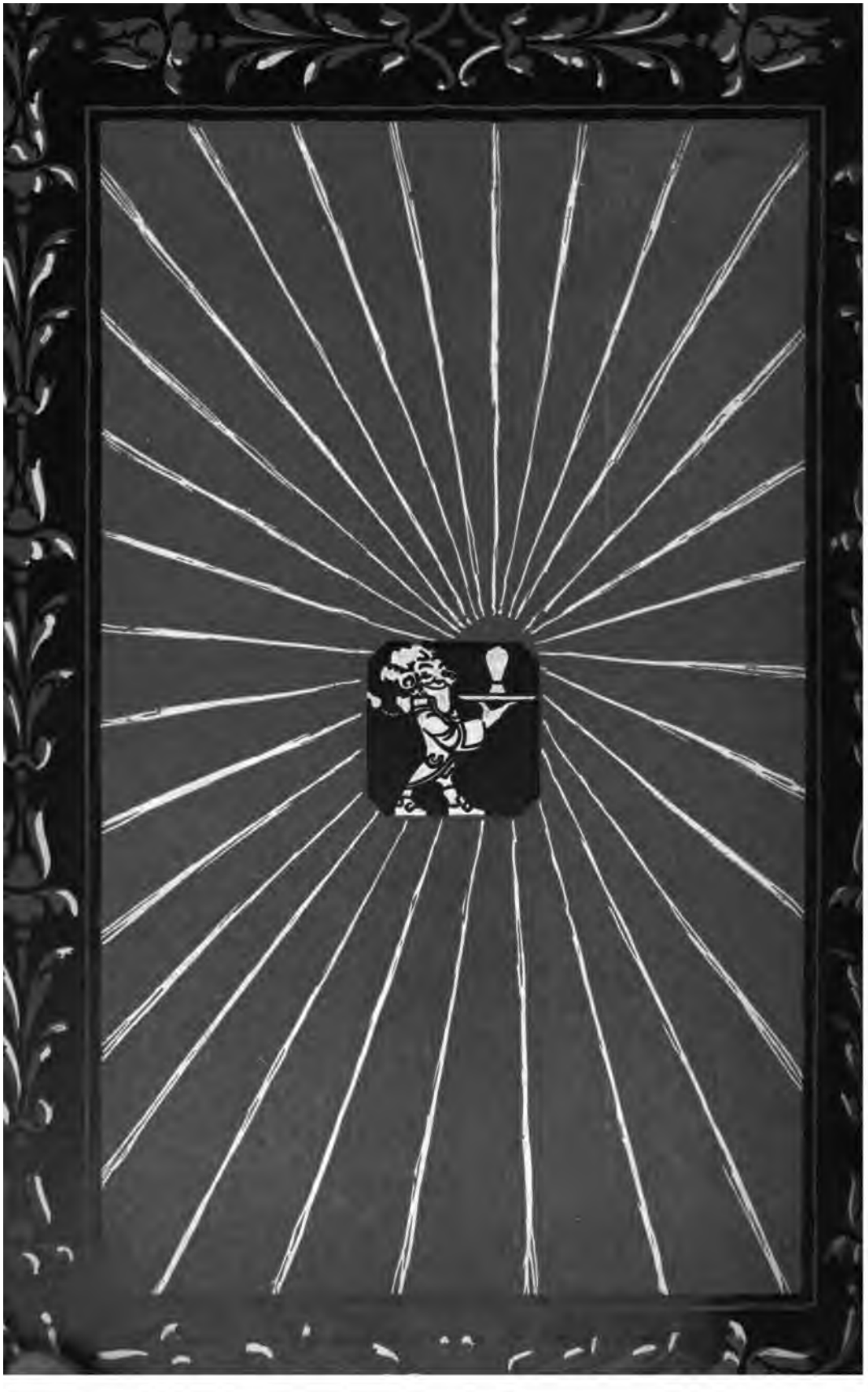
Bronx (One Hundred and Forty-ninth Street District)

Office at 362 East 149th Street, William A Ruenzler, Manager; Telephone, Melrose 9900. Boundaries: All territory lying between the Harlem and Bronx Rivers and between One Hundred and Thirty-second Street and East One Hundred and Seventy-second Street. The dividing number between the One Hundred and Forty-ninth Street Office and the Tremont Avenue Office, on all avenues with the exception of Third and Park Avenues, is 1499. On Third and Park Avenues, however, the dividing number is 3699.

Bronx (Tremont District)

Office at Tremont and Monterey Avenues, Albert Goldman, Assistant General Commercial Manager, Bronx District; Telephone Tremont 6900, Extension 225; Richard Goff, Manager, Tremont Avenue Office; Telephone, Tremont 6900, Extension 100. Boundaries: The territory covered by the Tremont Office extends from approximately One Hundred and Seventy-second Street, north to Yonkers City line; all territory lying between the Harlem River and Two Hundred and Twenty-fifth Street, and the Hudson River from Two Hundred and Twenty-fifth Street to Yonkers on the West, and the Bronx River on the East, including Woodlawn, Spuyten Duyvil, Riverdale and Mount Saint Vincent Districts.



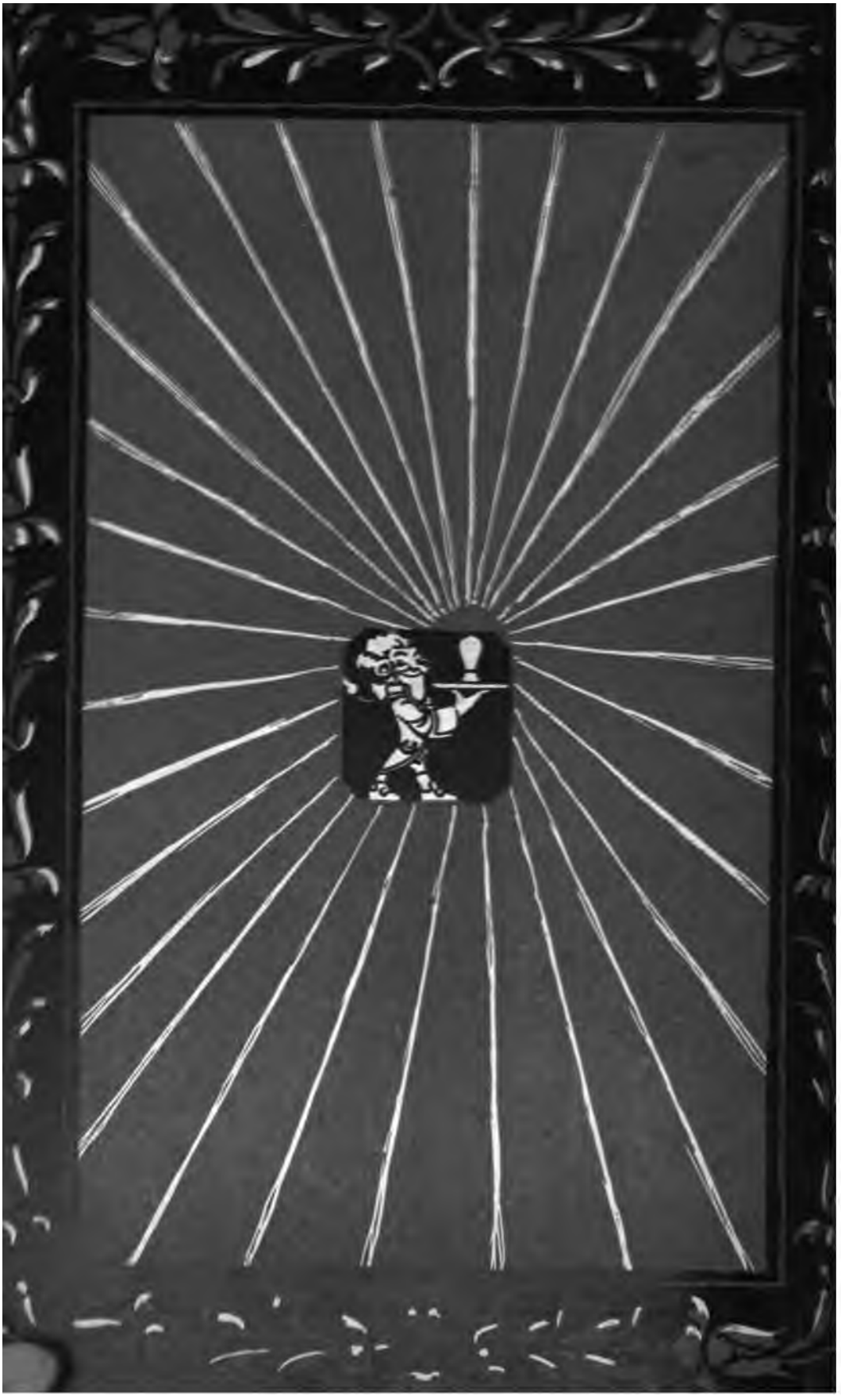


TECHNOLOGY DIVISION

The EDISON Monthly

MARCH 1921

THE NEW YORK EDISON COMPANY
Irving Place & 15th Street, N.Y.



March 1921

The Stadt Huys New York 1679

VOLUME 13

CONTENTS

NUMBER 3

The Edison Monthly

	Page
The Electrical Directory	Inside Front Cover
Editorial	34
Electrics Exclusively	35
The Grocery District	39
Showing How	42
The Song of the Wire (Verse)	45
Tasty Pastry	46
Edison District Offices with Map	Inside Back Cover

Copyright 1921, by The New York Edison Company

The Edison Monthly
Published by
The New York Edison Company
General Offices
Irving Place and Fifteenth Street
New York City

N F BRADY, President
WALTER NEUMULLER, Secretary
FREDERICK SMITH, Treasurer

Demonstrating is one of the most effective forms of advertising. The prospective consumer is not only made aware of the existence of the article demonstrated, but is shown in an interesting and convincing manner what it is able to accomplish.

With this in mind and appreciating the ever increasing part which electricity is playing in the life of everyone the central station industry long ago decided that demonstrations of various electrical appliances would be of great interest, inform the public regarding the household uses of electricity, and at the same time be of decided benefit to the electrical contractor and dealer. Demonstrations have, therefore, been carried on not only in show windows making their appeal to the casual passerby, but have also been arranged for special groups of people who might be particularly interested in home appliances. Lectures are being given before domestic science classes in high schools and also before various women's clubs. One large manufacturing concern has even built what might be called a portmanteau theatre in which are demonstrated not only appliances for the home, but also various types of lighting. This innovation is meeting with great success and is presenting demonstrations not only before classes and clubs, but before groups of salesmen and various electrical organizations as well.

The unqualified success achieved by the Electric Automobile Show, held in the Irving Place Showroom from January 29 to February 12 was due chiefly to the fine co-operation of the electric automobile industry with the central station industry. As described elsewhere in this issue, the general arrangement of the exhibition was well planned to the last detail. No effort was spared to make the show—the first of its kind to be held in New York City—as attractive as possible. The results were most gratifying. The big showroom was thronged with visitors, many from out of town, and sales were made both of passenger cars and commercial cars and the names of many prospective purchasers were obtained.

Others for the first time were made familiar with the possibilities of electricity in solving their manufacturing and traffic problems.

The show served an educational purpose as well as a commercial one. Many of the visitors came to learn of the most recent developments in electrical transportation and the latest uses to which electricity is being put for handling material at piers and terminals.

The public's interest, the commercial results, and the good will and spirit engendered between two great industries and the public, all point to the mutually advantageous results which may be attained through co-operative effort between the central station company and the manufacturer of electrical merchandise.

Electrics Exclusively

THE first "all electric" Automobile Show in the history of New York City was thrown open to the public on January 29th last. This forward step in the merchandising of storage battery trucks and passenger cars is directly due to efforts and backing of The New York Edison Company, whose showroom at 15th Street and Irving Place was the scene of the exhibit. Invitations were sent to all the manufacturers of trucks, tractors, pleasure cars, storage batteries, and accessories to co-operate in making the exhibit both comprehensive and representative. Many days before the scheduled opening, all available floor space had been booked.

The number of entries was so great that it was decided to exhibit the street trucks and passenger cars first, and then the industrial trucks, tractors, and trailers, in a separate display. The batteries and accessories were to remain for the entire period of two weeks. This plan was adopted and from January 29th to February 5th, the Irving Place showroom had, instead of its customary numerous household appliances, an impressive array of electric trucks ranging in size from the one thousand-pound worm drive car of the Lansden Company to the three and a half-ton chassis which the Walker Vehicle Company exhibited.

The Edison showroom, with tiled floors, marble trim, and plate glass

Photograph by The New York Edison Company

During the First Week of the Show Electric Trucks and Passenger Cars Were Exhibited

General View of the Electric Automobile Luncheon Held at the Hotel Astor on February Second

display cases surrounding the supporting columns, is a place of considerable beauty. Yet this last named truck, with an over-all length of approximately twenty-two feet was backed in under its own power, manoeuvered by the chauffeur until it had made a right-angle turn and was at last brought into position between two of the showcases with a clearance of about a foot on each side. "This," according to Arthur Williams, General Commercial Manager of The Edison Company, "shows how easily the electric truck can be controlled, a matter of great importance in our congested streets."

Included in the first week's exhibit were a two-ton Oneida truck, a three and one half-ton chain-driven Lansden chassis, a one-ton car from the Commercial Truck Company and a chassis manufactured by the Ward Motor Vehicle Company. Passenger cars, a coach and brougham from the Baker, Rauch and Lang organization and a limousine from the Berg Electric Car Company, lent distinction to the exhibit. Storage batteries of all types, both lead and alkaline, were on show as well as charging boards and automatic charging devices. The plate glass display shelves which surround the pillars that support the ceiling of the elaborate showroom were filled with accessories of every nature. These exhibits were from the Hammacher Schlemmer Company, while the Rogers Peet Company exhibited chauffeurs outfits and motor robes.

On Wednesday, February 2, a luncheon was held at the Hotel Astor, at which all those interested in the electric vehicle industry in New York and neighboring cities were present. Mr Arthur Williams, General Commercial Manager of The New York Edison Company, Mr R E M Cowie, Vice President of the American Railway Express Company, Mr William Onken of the Electrical World and former Governor Alfred E Smith, were the principal speakers. At the close of the luncheon all the guests visited the Electric Automobile Show where demonstrations were arranged for their benefit.

Industrial Trucks

Devoted entirely to the exposition of modern electrical devices for lifting, storing or manning heavy articles at freight stations, steamship piers or industrial establishments, the second week of the Show opened on February 7th. Instead of the big two- and three-ton street trucks of the previous week, there were shown the various types of indoor floor trucks, better known as industrial trucks. Ten manufacturers were represented and their exhibits included load-carrying trucks, tractors, trailers, elevating platform trucks, tier-lifting trucks and crane-equipped trucks. The carrying capacity of these trucks averages about four thousand pounds, while electric tractors are capable of pulling thirty tons. The short wheel base of the former and their quick turning features make them especially desirable for use where space is limited. Of particular interest during the second week of the exhibit was an industrial truck that had been carrying trunks and baggage at the Grand Central Station since 1911. This was the first industrial truck that the New York Central Railroad used and the week that it spent at the Irving Place

Showroom was its first vacation from continuous day and night duty for ten years, during which time it travelled seventeen thousand miles up and down the station platform. It has since been returned to its work and many years of usefulness are still expected of it.

The result of the Electric Automobile Show of 1921 has been an added recognition of the merits of the electric vehicle as shown by the number of sales already reported. Throughout the entire two weeks of the Show the Automobile Bureau of The New York Edison Company co-operated with the exhibitors and took charge of arrangements, directed prospective purchasers and assisted the manufacturers in every way possible. Charts, prepared by the Bureau, set forth the number of trucks now in use, the ages of many, the cash investment as represented by the electrics now in service and much other interesting and instructive information.

The Electric Automobile Show proved such a beneficial movement that it has been decided to make it an annual event. Officials of The New York Edison Company expressed themselves as having been pleased by the results and stand ready to place the service of their organization at the disposal of anyone desiring knowledge of the electric vehicle, its advantages and its adaptability for city work.

The Electric Automobile Show of 1921 was an unqualified success from the standpoint of the central station, the manufacturer, and the ultimate user.

Photograph by The New York Edison Company

General View of the 15th Street Showroom During the Second Week of the Show; Industrial Trucks Have Replaced the Trucks Shown the Previous Week

The Grocery District

OF all of New York's business communities, there is none perhaps which makes the same fascinating appeal and withal which means quite so much to the daily welfare of the city, as the wholesale grocery district. Without this district and the many activities which centre there, New York, living as it does from hand to mouth, would soon find its larder depleted and its people wondering where the next meal was coming from. The district lies west of West Broadway and north of Chambers Street and reaches almost to Canal Street. Hudson Street is its main artery. Practically all of the food that comes to the city passes through it, or if the food itself does not actually reach the warehouses, it is quite likely that the transactions relating to the trade are carried on in some one of the offices.

Photograph by The New York Edison Company

The Borden Building, One of the Several Modern Structures in the Grocery District

The community grouping of business interests, of which the wholesale grocery district is typical, is quite characteristic of large cities. In New York, the jewelers have stamped their individuality on Maiden Lane, Wall Street is known the world over as the centre of the financial universe, Fourth Avenue is the centre of the dry goods trade, Madison Avenue houses the silk merchants, and the leather interests are grouped in the Swamp just south of the Brooklyn Bridge.

One who visits the grocery district for the first time will find himself in a community wholly unlike anything he has ever seen before. Yet, in a strange land, he will not feel entirely a stranger for well known trade names and brands will greet him at every corner. Recollections of tasty canned goods will be called forth by the White Rose and Scarlet Ribbon trade marks of Seeman Brothers and

R C Williams and Company. The Dromedary will remind him of all the luscious dates he has ever eaten and a huge green pickle will make him think of the "57" different relishes that are put out under the name of Heinz.

The R C Williams Company Has Grown Until Now It Occupies this Entire Block

The place has its peculiar noises too. All day long there is the steady rumble of trucks as they pass back and forth over the cobble-stone streets—one passing near enough to the Mercantile Exchange will hear the shrill calls of brokers as prices fluctuate—in Hudson Street there will be the clang of the locomotive bell as puffing engines, in the red frame housings, haul heavy cars to and from the St John's Park station—and as one picks his way through the crowded thoroughfare he must keep his eyes wide open, for half the time he will be walking out in the middle of the street to get around the front end of a truck that is backed into the loading platform of some warehouse and the other half of the time he will be climbing over these platforms. Straight ahead progress along the sidewalk is almost an impossibility in the grocery district.

Although the district itself is old and some of its building date back to the days before the Civil War there are many newer structures and these lend an air of modernity as they tower above their three- and four-story neighbors.

While Hudson Street is the centre of the grocery district, Greenwich Street and West Broadway and the cross streets are lined with specialty houses. On one street one will find building after building occupied by dealers in butter, cheese, or eggs; on another block one will pick his way from one end to the other through piles of celery crates; bags of onions will dominate another street and the lowly spud will be the king of the next corner. The Fruit Trade Building is at Washington and Franklin Streets and here the visitor will encounter crates of pineapples, barrels of apples, boxes of oranges and lemons and as their seasons arrive, all the other fruits that the New York appetite craves. Spices too have their special locality, and here as in the fruit district, ones nose knows, even though ones eyes be wandering.

The dealer in groceries and produce is essentially a night worker. He is up and about his business long before the rest of the city is stirring, for fresh vegetables must be on the retail stands and ready for the buyer when she begins her days marketing. As a result of this, the district presents its greatest activity in the small hours in the morning. In the old days the dealers carried on most of their work in the light of oil flares stuck on uprights, but today, with electric service available in every part of the district, the corner street lamp and the many lights in front of each warehouse provide an illumination that is as different as it is adequate.

Not only does Edison Service provide illumination for the outdoor worker but it lights the offices and warehouses as well, for almost every building in the grocery district secures its current from the central station. This applies also for the many warehouses and cold storage buildings, for these too are lighted and their refrigerating plants are operated by central station service.

Still another important use of electricity in this district is the operation of electric trucks, many of the wholesale houses using storage battery vehicles in distributing their products through the city.

Thus in one branch of the cities business we find the all useful electric current, not only lighting buildings and outdoor markets, but preventing the loss of perishable produce, doing many tasks in the preparation of foods, and finally forming an important link in the distribution of supplies to the New York public.

Looking Down Hudson Street, the Heart of the Grocery District

Showing How

SEVERAL educative means have been employed during the past score of years or more to propel the home economics movement on its widespreading way. Among them may be included books compiled by persons interested in home economics, that science which applies arts, sciences, and economics to the affairs of the family; correspondence courses for those unable to attend classes; lectures before clubs and in public and private schools; articles appearing in the household departments of magazines and newspapers. These methods are valuable in that they present the theory in detail and explain the practical side. But the average person wants to see in order that she may more easily believe. For this reason demonstrating has come to be one of the largest contributors to the movement. One of the chief aims of home economics is the elimination of drudgery from household duties. The development of electrical appliances has made this a possibility. However, as in the case of every new step, the possible user "has to be shown."

One of the first and most important steps is the training of the future home-makers, the young girls who are still in school. Domestic science is encouraging the use of electricity, and therefore instructs in the use of electrical appliances. In order to do good work, students are taught, good tools should be used. Therefore it is

Photograph by The New York Edison Company

Demonstration of an Electric Table Grill and Ovenette before a Cooking Class in the Washington Irving . . . High School . . .

Photograph by The New York Edison Company

Special Demonstration of Electrical Laundry Equipment in One of the Showrooms of The New York Edison Company

a part of their training to learn the advantages of adopting electrical devices for household use. The field here is large for there are cooking classes, sewing classes, and classes in household efficiency, all of which are interested in things electrical.

At a recent demonstration in the Washington Irving High School, fifty girls from the cooking classes assembled to see a demonstration in which a table grill and ovenette were used to bake muffins, broil ham, and cook candied sweet potatoes. The demonstrator stood at a table in the center of the room and the girls sat in a wide circle around her. Most of the students knew what a grill was but not all of them were sure about the correct usage of the shiny nickel appliance. The demonstrator explained its construction and its use with the ovenette. Then she deftly mixed a batter for muffins which she proceeded to bake in the ovenette. In the meanwhile she showed them the correct method of connecting and disconnecting electrical appliances; she explained the possibility of overloading the circuit by attaching too many appliances to a socket at the same time. The candied sweet potatoes were next prepared and as soon as the muffins were done the potatoes and ham were started. By this demonstration the students were given opportunity to see just what electricity would do in preparing a meal and what its advantages were over other methods of cooking. They also learned a little practical electricity. Their enthusiasm and the knowledge gained were undoubtedly taken home to be passed along to their grown-ups.

Women's clubs, community clubs, private groups of women meeting to discuss and study home economics, often entertain lecturers and demonstrators. In such cases members are likely to learn some new way of using an appliance hitherto not considered. They find to their surprise that they have been plodding along in a rut out of which electrical devices might have pulled them long ago had they but taken advantage of them.

Besides a so-called neighborhood demonstration there is the type that is open to the public in general. Not only are the manufacturers and retailers active in displaying their wares before the public, but also the lighting companies. The Bureau of Home Economics of The New York Edison Company has as its aim the informing of the public in the use of electrical appliances. Window and showroom demonstrations are made a specialty in order that the public may have the chance to see in operation the things about which they read and hear.

Pausing before a show window for a few minutes to watch a demonstration of an electrical sewing-machine the average person, accustomed to using a machine worked by a pedal, would at first perhaps be possessed of a feeling of curiosity mingled with skepticism. But the ease with which the sewer guides her material under the electrically driven needle suggests yards of sewing without fatigue to the operator of the machine. It is, to be sure, a valuable asset to consider. After that the old type of machine does not satisfy, for the electric machine does the work without loss of energy.

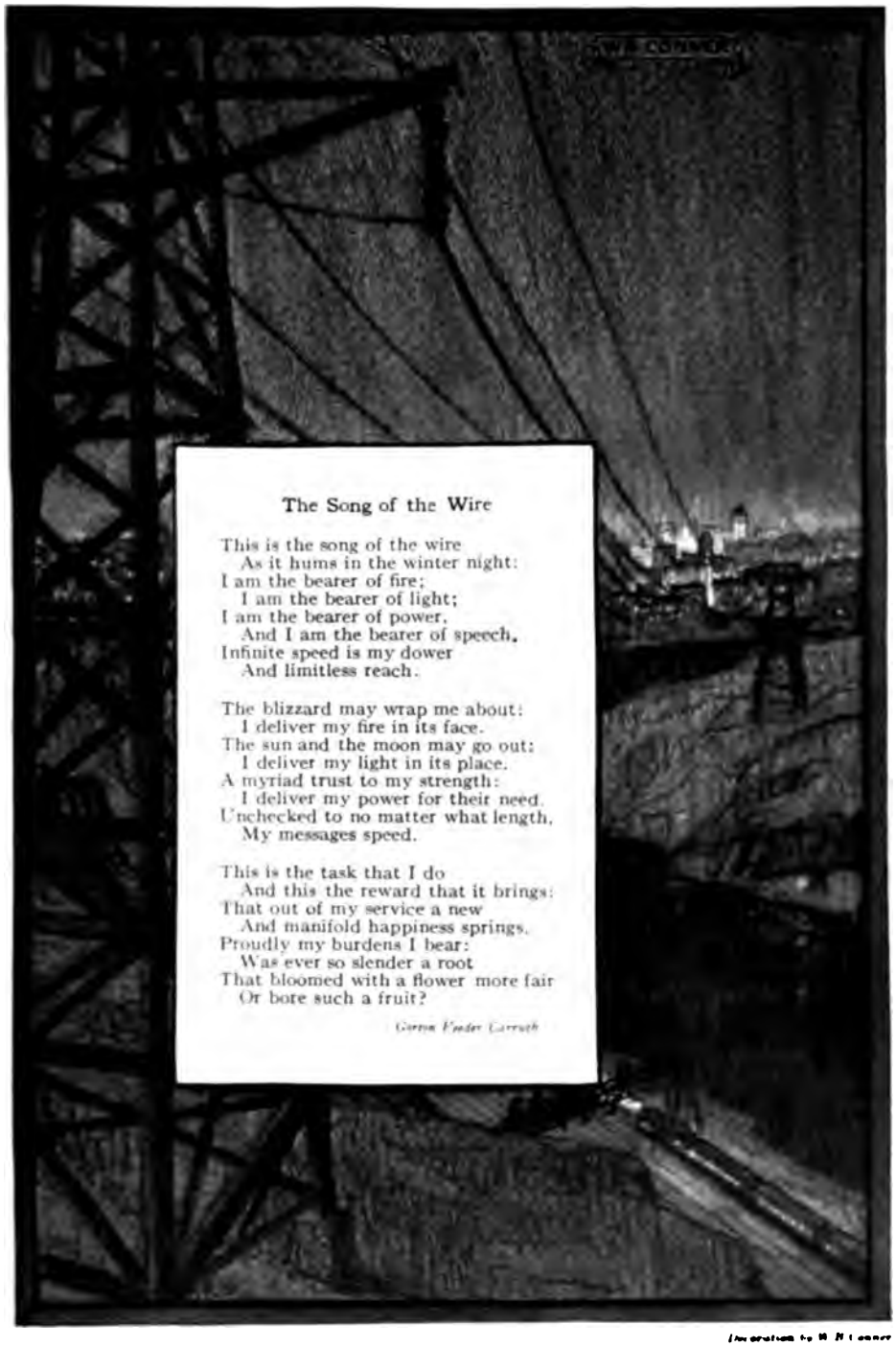
In one of the showrooms of this company a group of young women attended a special demonstration given by one of the members of the bureau. Each of the more important household appliances was taken in turn and its operation and advantages and operating costs explained. It was easy for the audience to make its own comparisons and draw its own conclusions. The result is apparent in the fact that a sale of some electrical appliance usually follows close on the heels of the demonstration.

Model Apartments

The model apartment and the experimental household station are also means of demonstrating to the public the electrical labor-savers that are coming to play so important a part in the affairs of the modern home.

At the Electrical Expositions, held each year at the Grand Central Palace, electrical household appliances are generously displayed. The manufacturers, retailers and lighting companies spend every effort to inform the public of progress made in electrical housekeeping and their representatives are present to operate the appliances.

Informing the public is the great task being carried on in the home economics movement. As has been said, electricity plays its part and not a small one either. Were it not for the demonstrators who work with the idea in mind that "seeing is believing," the progress of the movement would be slow. But once the public is shown the advantages to be had by using electrical appliances in the home it will be thankful that it did not turn a deaf ear to valuable advice.



The Song of the Wire

This is the song of the wire
  As it hums in the winter night:
I am the bearer of fire;
  I am the bearer of light;
I am the bearer of power,
  And I am the bearer of speech.
Infinite speed is my dower
  And limitless reach.

The blizzard may wrap me about:
  I deliver my fire in its face.
The sun and the moon may go out:
  I deliver my light in its place.
A myriad trust to my strength:
  I deliver my power for their need.
Unchecked to no matter what length,
  My messages speed.

This is the task that I do
  And this the reward that it brings:
That out of my service a new
  And manifold happiness springs.
Proudly my burdens I bear:
  Was ever so slender a root
That bloomed with a flower more fair
  Or bore such a fruit?

Gordon Feeder Carruth

Decoration by W. H. Conner

Tasty Pastry

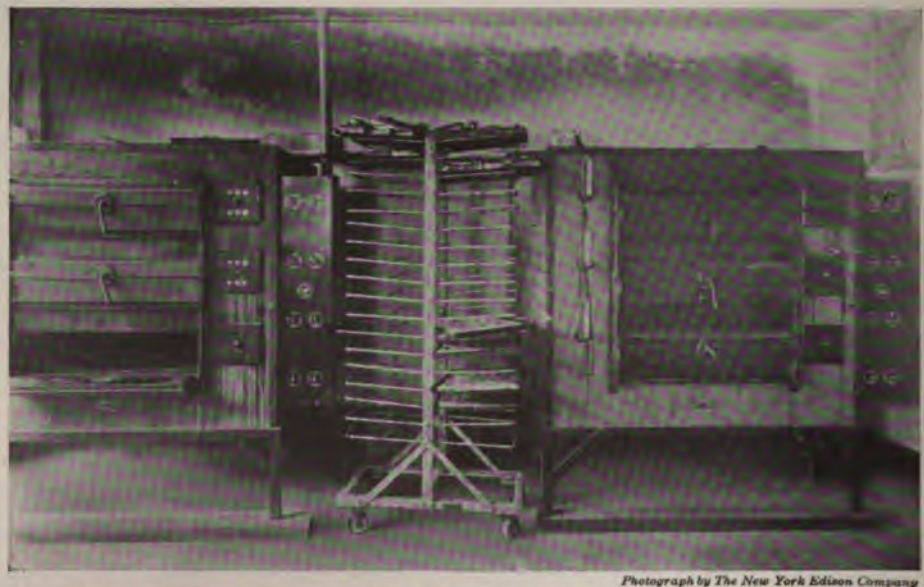
"YES, sir, which shall it be?" queries the waiter as with a hovering fork he touches first one, then another of the pastries on the tray he holds—and has been holding for at least five minutes while you have been trying to decide which delicious looking confection you really want.

And you can't seem to choose—you really can't! That chocolate looking one with the green things sprinkled on top looks wonderful, but at the same time the curly tubular thing with the cream at each end might be better, it looks more simple and perhaps is more digestible. Of course all the time you have one eye on the great oblong piece, all flaky and covered with a cream filled with little lumpy things!

You choose one—the very richest, of course—and then question the waiter as to the whys and wherefores of pastry. He tells you the tale and it is interesting. Perhaps he tells you of the Barna Corporation, makers of every kind of pastry and bonbons. For here is a business built up in a few years from—well, really nothing at all,—just one little shop, to a large establishment employing the latest in machinery and methods.

About six years ago a little restaurant and pastry shop was opened on the corner of Eleventh Street and Sixth Avenue. The food served was good and the pastry was perfection itself. One ate it and immediately and invariably wanted more. What was the secret? How was it made?

On the top floor of a little house



Photograph by The New York Edison Company

These Two Electric Ovens are in Almost Constant Operation in the Bakery of the Barna Corporation and are Giving Complete Satisfaction

Photograph by The New York Edison Company
An Electric Refrigerating System Keeps This Room at Ten Degrees Above Zero

across the street Bertalan Barna—the proprietor of the French Pastry Shop—had installed a very small bakery presided over by Leon Trum, a veritable wizard at inventing and baking pastry of all kinds. Here were prepared the wares which, when carried to the little shop on the corner and set forth in the show case, disappeared usually in less than half an hour. The fame of the French Pastry Shop grew. Soon branch shops were opened which in every respect maintained the high standards of the original.

A trial was made to see if good candy would prove as popular as good pastry. It did! Barna's Bon Bons sold almost before they had a chance to cool.

Larger, much larger quarters, were needed, though with the opening of the branch stores the bakery had been enlarged and one or two assistants employed. Three floors were rented at 144 West 18th Street and a force of expert pastry cooks and candy makers employed, all to work under the immediate supervision of Mr Trum. Then arose the question as to what sort of machinery should be used to obtain the same results in baking and cooking large quantities of pastry and candy as were obtained when only small quantities were required. And then as to refrigeration! How were milk, butter, and eggs to be kept sweet and fresh until needed—indeed, how were the finished products, the wonderful pastries and candies, to be kept fresh until sent out to the many hotels and restaurants that were clamoring for them.

Various types of ovens were tried none of which came up to the standard required. Then two huge electric ovens were installed. The results were perfect. Not only was the temperature under constant control, a necessary factor in good and painstaking baking, but they were absolutely free from all smoke, dirt, or odor. "These two electric ovens," said Mr Trum, "do more work than eight of the type of oven we had before!" Another oven is electrically operated in such a manner that the pastry being baked is carried on revolving trays in close proximity to the actual source of heat. This is used for very quick baking.

So successful was the use of electricity for supplying heat that it was decided to use it also for supplying cold. A large electric refrigeration system was installed. In one room so equipped—the ice cream room—the temperature is kept at 10 degrees

above zero! The temperature of the refrigerating rooms is first set at the desired degree and then automatically is kept there. Current is consumed only when the temperature rises above the degree set. Electric refrigeration produces a dry cold. Pastry may be set in a room chilled electrically with no risk of it being injured by moisture.

Now just as it is necessary to cool candies and cream fillings, so it is also necessary sometimes to warm them. For this purpose a small room has been equipped with two electric heating units. Here on shelves are to be found trays of luscious confections awaiting their turn to be dipped and coated with rich, creamy chocolate. This coating, by the way is kept at just the right consistency in electrically heated basins sunk in the center of the dipping table. For beating the creams used in the candy, large electric beaters are employed.

There is a machine for making almond paste and a giant revolving kettle for coating jordan almonds. Both, of course, are electrically operated.

In the pastry department a large dough mixer and two beaters are in almost constant operation. In fact, the whole plant runs continuously day and night.

By liberal use of that truly rare sense so falsely characterized as common, Mr Barna and Mr Trum have built up the Barna Corporation so that in the short space of six years it has earned for itself a most enviable place in the confectionery trade. How did they do it? By taking advantage of the most economical and efficient means for obtaining light, heat and power—electricity through central station service.

Photograph by The New York Edison Company

This Big Revolving Kettle is Used for Coating Jordan Almonds. In the Middle Background May be Seen One of the Large Electric Mixers

District Offices of The New York Edison Company

Contract and Inspection Department

Broadway District

Office at 424 Broadway, D F Brown, Manager; Telephone, Canal 8600. Bounderies: The Broadway District includes the territory south of Christopher and Eighth Streets, west of the Bowery, and south of Catherine Street.

Norfolk Street District

Norfolk Street Office at 20 Norfolk Street, L P Bendall, Manager; Telephone, Orchard 4261. Boundaries: The Norfolk Street District includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catherine Street.

Irving Place District

Office at 10 Irving Place, S F Fahnestock, Manager; Telephone, Stuyvesant 5600, Extension 405. Boundaries: The Irving Place District includes the territory between and including Eighth Street and Twenty-eighth Street from the East to North Rivers.

Forty second Street District

Office at 124 West 42nd Street, W M Kerr, Manager; Telephone, Bryant 5262, Extension 98. Boundaries: The Forty-second Street District includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to the North Rivers.

Eighty-sixth Street District

Office at 151 East 86th Street, H S McGrath, Manager; Telephone, Lenox 7780. Boundaries: The Eighty-sixth Street District includes the territory north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park West.

One Hundred and Twenty-fifth Street District

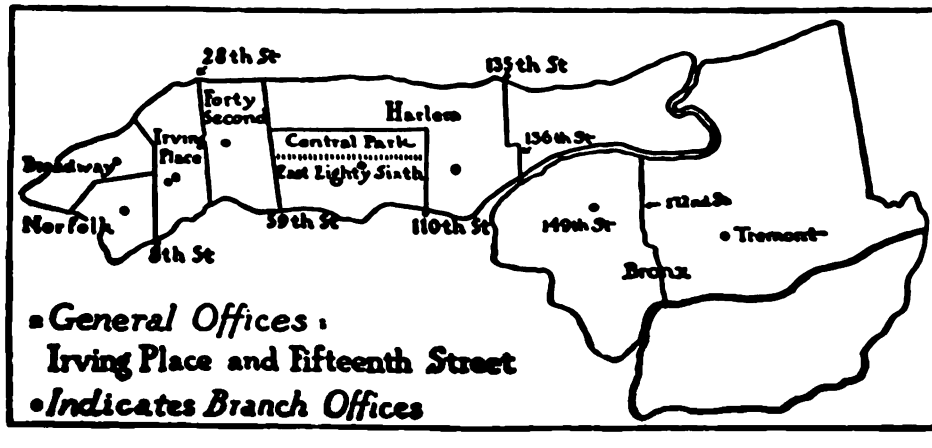
Office at 15 East 125th Street, William J Meara, Manager; Telephone, Harlem 4020 Boundaries: The One Hundred and Twenty-fifth Street District includes the territory bounded by the North River, Fifty-ninth Street, Central Park West, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St. Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St. Nicholas Avenue.

Bronx (One Hundred and Forty-ninth Street District)

Office at 362 East 149th Street, William A Ruenzler, Manager; Telephone, Melrose 9900. Boundaries: All territory lying between the Harlem and Bronx Rivers and between One Hundred and Thirty-second Street and East One Hundred and Seventy-second Street. The dividing number between the One Hundred and Forty-ninth Street Office and the Tremont Avenue Office, on all avenues with the exception of Third and Park Avenues, is 1499. On Third and Park Avenues, however, the dividing number is 3699.

Bronx (Tremont District)

Office at Tremont and Monterey Avenues, Albert Goldman, Assistant General Commercial Manager, Bronx District; Telephone Tremont 6900, Extension 225; Richard Goff, Manager, Tremont Avenue Office; Telephone, Tremont 6900, Extension 100. Boundaries: The territory covered by the Tremont Office extends from approximately One Hundred and Seventy-second Street, north to Yonkers City line; all territory lying between the Harlem River and Two Hundred and Twenty-fifth Street, and the Hudson River from Two Hundred and Twenty-fifth Street to Yonkers on the West, and the Bronx River on the East, including Woodlawn, Spuyten Duyvil, Riverdale and Mount Saint Vincent Districts.



TECHNOLOGY DEPT.
APR 15 '21

The EDISON Monthly

APRIL 1921

THE NEW YORK EDISON COMPANY
Irving Place & 15th Street, N.Y.

The Electrical Directory
and the Edison Show-rooms

THE very great increase in the number of names listed, and consequently the broadened scope and added importance of The Electrical Directory make it necessary to issue it as a separate publication rather than as a department of THE EDISON MONTHLY. The Directory in its new form will be distributed partly by mail and partly through the offices of The New York Edison Company. It will be sent without charge to anyone upon request.

The Electrical Directory is published for the purpose of rendering the greatest possible assistance to those desiring to use Edison Service for any purpose. Its lists include the names of dealers in every form of electric appliance, manufacturers or their agents, and contractors who do electrical work in the territory served by this Company. So far as is possible, the accuracy of each name and address is carefully verified.

Another object of the Directory is to give to every manufacturer, agent, dealer, and contractor an equal chance with those desiring to purchase devices or to have equipment made.

The Company desires to encourage the establishment of the largest possible number of dealers in electrical devices, appliances, and incandescent lamps, and of independent electric contractors who do satisfactory work at fair prices. It is believed that this policy is in keeping with the public interest, and is aided through a directory of this nature.

Each manufacturer or agent has equal right to free space, electric current and demonstration in the various show-rooms of the Company, and equal endorsement by the Company's representatives when talking with prospective purchasers. The Company's representatives are forbidden to recommend any particular device as compared with another, and final choice in the purchase must rest with the purchaser.

It might be added that the Company itself makes no sales (other than of incandescent lamps), nor does it install any kind of electrical equipment upon the customer's premises, other than directly identified with its service and meter. Appliances are shown and demonstrated, and an order from the purchaser will be received and transmitted to the manufacturer or agent of the appliance selected, without commission or charge of any kind for this service.

The New York Edison Company

April 1921

Old Post Office Building, Nassau Street

VOLUME 13

CONTENTS

NUMBER 4

The Edison Monthly

	Page
The Electrical Directory	Inside Front Cover
Editorial	50
Refrigeration by Wire	51
Specialized Electrical Shows	54
To Their Bright Eyes (Verse)	54
Show Shows Results	55
Printers' Trucks	59
The Electric Motor to the Steam Engine (Verse)	61
Canadian Pacific Building	62
Edison District Offices with Map	Inside Back Cover

Copyright 1921, by The New York Edison Company

The Edison Monthly
Published by
The New York Edison Company
General Offices
Irving Place and Fifteenth Street
New York City

N F BRADY, President
WALTER NEUMULLER, Secretary
FREDERICK SMITH, Treasurer

Last January a photograph of the ten million dollar waterfront fire in New Orleans was widely circulated in the picture supplement of Chicago and other newspapers, with the statement that the "short-circuiting of an electric wire near the surface of water that was covered with oil, is believed to have caused this conflagration."

In view of the actual fa ts, it is hard to tell just what the writer of that caption based his belief upon.

An inquiry by the National Electric Light Association has brought the following reply from Mr George W Booth, chief engineer of the National Board of Fire Underwriters:—

"In reply to your letter under date of the first, we would state that the recent fire at the Jahncke Dry Dock was not caused by the breakage of an electric wire, as reported in the newspapers. An investigation by one of our engineers indicates that a hot rivet dropped from a ship undergoing repairs, into oil-coated debris on the water surface was the probable cause. As a matter of fact, there were no electric wires anywhere near the scene of this fire, the breakage of which could possibly have ignited the oil on the water surface.

"A 400-volt line was in course of installation and the conduit for this line was attached to the under side of the pier flooring, but wires had not been drawn. The wires for lighting purposes are located on the land at such a distance back from the dock front as to preclude the possibility of any broken wires falling into the water."

Very often in the excitement snap judgment is used in seeking the cause of fires and the reporter blames the electric wiring. The inaccuracy of such a practice is strikingly illustrated in this instance.

The latest member of that always dependable group of assistants—the little electric servants in the home—is the refrigerator. The iceless icebox has taken its place with the vacuum cleaner, the washing machine, the ironer, the dish washing machine, and all the smaller appliances, as part of the equipment of the well planned home of today. It is used not only in suburban houses and city dwellings, but in apartments as well, and the progress that it has made during the past decade—the whole history of electric household refrigeration is a matter of not much more than ten years—augurs well for its future.

As pointed out elsewhere in this issue, electric household refrigeration is now being used in many homes, and how successful it is proving may best be judged by extracts quoted from letters written by those who are now employing this new servant. In view of this it is not too much to expect that another ten years will see practically every home equipped for refrigeration by wire.

Refrigeration by Wire

ELECTRICAL household refrigeration has kept its promise. It has made good! In its early history, as in the beginning of any new and big project that presents a radical departure from the old way of doing things it encountered much scepticism from those who were not far-sighted enough to understand its wonderful possibilities. Certain enthusiasts, however, had faith that electrical refrigeration was going to develop into a practical, efficient, and economic household institution. Such has been the case.

What is a success? Colloquially speaking, it is that which accomplishes its aim and thereby wins favor. The aim of electrical refrigeration has been and continues to be the preservation of perishable foods in clean, cold, dry air by means of an efficient and economical process. That it is proving to be an unqualified success is evident in the number of compliments paid by experienced owners and users of electrical household refrigerators.

Refrigeration for Health

"It is not the length of time the perishable foods are kept that makes them dangerous for human consumption, it is the way they are kept. If our food were kept properly clean and cold, crisp and dry, about three quarters of all our gastric disturbances would be eliminated." This was said by an eminent physician who advocated the use of the electric refrigerator because of its characteristics so [illegible] entific food saving.

With the happy elimination of dripping moisture and damp air from the refrigerator an ideal condition has come into existence in the cooling compartments of the machine. Moisture-laden air is not sanitary because it contains germs which multiply rapidly. Foods decay readily when contaminated by impurities. But dry, cool air makes it impossible for bacteria to thrive, and at a temperature maintained at about 40 degrees or lower they become dormant and therefore harmless. Thus it is that "food keeps in it much longer," as one housekeeper proudly told her friend when describing her latest piece of electrical household equipment. "The fact that the temperature is kept practically the same all the time is another great asset, because in a uniform cold, all edibles, particularly butter and milk,—are more wholesome." This last was written by a man in whose home an electric refrigerator "has given complete satisfaction."

The circulation of dry air throughout the compartments of the machine has done away with the danger of one food tainting another. In the old-fashioned method of refrigeration this was one of the predominating faults.

Being automatic, the electric refrigerator carries on its duties without any care or adjusting. "Since its installation in September last it has caused no trouble whatever, and required no attention," is the happy compliment that was paid to one of the many machines installed in New

York City. Thus it is a labor-saver. There is no need for drip-pan emptying, nor does it require cleansing of mould and dirt that would have accumulated in a damp atmosphere.

"Certainly it is a success," continued the pleased owner. It is more than a success, it is a comfort and a great convenience. Perfect refrigeration, ice always at hand, no spoiled food,—I have had no occasion for regrets."

A waste-eliminator, then is this scientific, automatic, efficient and therefore economical apparatus. Saving in money is represented by the quantity of foodstuffs that are kept from spoiling, especially in hot weather, while independent of any exterior cooling process. With adequate cold storage, the week-end's supply of perishable foods is insured against taint and decay.

There are a number of other, yet important, conveniences to be had. Among these are the freezing of ice cubes for table use and the chilling and freezing of salads and desserts. In one compartment of the machine there are pans in which cubes of ice may be produced, or desserts can be placed in the same pans and when hardened to the desired consistency they can be removed in dainty moulds. In the other compartments salads or other foods may be chilled so that, cool and crisp, they will arouse the delight of the family and guests who are to be served with them.

An interesting and yet not unusual occurrence is brought to mind in the case of a young woman who found herself, one very warm Sunday afternoon, the sudden hostess of six tired,

Perishable Foods Are Scientifically Preserved in the Electric Household Refrigerator

dusty, overheated and hungry guests. They broke their long automobile tour by stopping unceremoniously at the home of their congenial friend on whom, they felt sure, they could depend for a cheery welcome and perhaps a dainty sandwich and a glass of cold tea. But imagine their surprise and delight when she served them, almost immediately, delicacies which one would not imagine could exist for very long on a hot summer day.

"There," she said, as the exclamations of her grateful admirers died down for want of breath, "is the remainder of yesterday's bridge party."

"Not in this hot weather!" one dubious young woman managed to gasp.

"Of course, and why not?" the

hostess queried as she passed a plate of cream cheese and lettuce sandwiches.

"The weather does not bother me any more since I have had my electric refrigerator. This fruit salad, for instance, and that mayonnaise and whipped cream dressing were made yesterday."

Each guest tasted the salad experimentally and then nodded her approval.

"And the iced chocolate, did you make that yesterday, too," ventured one curious young matron.

"No," was the admission, "that was made to-day, but the whipped cream is left from yesterday. That is one of the advantages of the electric refrigerator. It keeps food fresh and prevents it from spoiling. When you have had your dessert I will show you how it works."

Sherbert, from dinner, again brought forth exclamations of surprise.

"To think that perishables like these have been kept for so long without even looking wilted! It is more than I can understand."

"You will understand as soon as you see the refrigerator, and what is more you will want one yourself."

And after the refreshing repast the hostess led her guests to her kitchen where the electric refrigerator stood beautiful and clean in its white enamel coat.

The technical operation of all electric refrigerators is practically the same. The refrigerant or gas to

Illustrations by Courtesy of the Frigidaire Company

An Electric Refrigerator Installed in a Kitchen Where, as an Efficient Safeguard of Food and Health, It Is an "Unqualified Success."

be compressed, condensed, evaporated, and changed back to a gas, travels its cycle again and again, and all the while the compressor is under the automatic control of a thermostat which regulates the temperature of the box within a range of a very few degrees.

The cycle itself is a simple one after all. The gas, either ethyl chloride or sulphur dioxide, has a low boiling point. In the act of being compressed to a pre-determined pressure, it is heated to a relatively high temperature. In the cooler of the condenser the heat of compression is removed as the gas is cooled either by water or air. Now liquidized it passes into coils where it is heated to a boiling point and thus becomes a gas once more. In its effort to return to atmospheric temperature during its final expansion it extracts the heat from the surrounding medium, brine or air, and produces the temperature desired for refrigeration.

Electrical refrigeration is no longer a promise; it is a promise fulfilled. The machine is an investment, and the saving in food, labor, energy, and operation are the interest returned. The owners are, invariably, more than satisfied with their purchases. One enthusiastic man said: "The only regret I have is that I am not rich enough to give one to everybody I know."

Specialized Electrical Shows

The Electric Automobile Show which was held in the Irving Place showroom of The New York Edison Company, was the first of a series of similar specialized exhibitions which the Company is planning to hold during this year. This month witnesses a display of electrical refrigerating equipment in which machines suitable for apartment houses or dwellings share interest with those designed for commercial purposes. The fact that the exhibit includes eight different machines of the household type, while ten years ago machines of this type had hardly passed the experimental stage, is a slight indication of the remarkable progress that has been made in this branch of home economics. The exhibit will open on April 4 and continue until the end of the week. As in the Automobile Show, there will be no charge to the exhibitors for space, and admission will be free.

According to present plans the May show will be devoted to an exposition of Electrical Advertising while Industrial Heating will be featured in June.

There will be no exhibitions during the summer months, and in fact not until after the Electrical Show in the fall. The first of the fall shows will be held in November and will be devoted to fixtures and lighting methods for the home. It will be followed by a display of electrical household appliances in December.

To Their Bright Eyes

'Lou Mination and D Light
Wink at me most every night;
You may wonder if they love me,
Flashing eyes so far above me.
No indeed, scant hope is mine,
Though I try to read each sign:
Fond I gaze, in rumination,
At D Light and 'Lou Mination!

Wanda Moore

Show Shows Results

THAT very real results were effected by the Electric Automobile Show, held in February in the showrooms of The New York Edison Company was apparent enough at the time. There was an air of activity, and an undercurrent of enthusiasm throughout the entire two weeks, and there was hardly a moment when some one of the exhibitors was not explaining the features of his product to interested visitors.

Just how real the interest of these visitors was, and how beneficial the exhibit proved to the industry is very strikingly shown in the several letters which have been received since the show closed. It is significant that in almost all of these letters, there is expressed a very great desire to participate in a similar display next year.

What the Exhibitors Say

From the Commercial Truck Company's letter, the following pertinent lines are quoted:

"We certainly appreciate all you and your company have done for us and the electric vehicle industry at large by having this Electric Automobile Show. We feel that a big percentage of the credit is due you personally.

It gives us pleasure to advise that during this Show we secured about fourteen good leads and one order was evidently closed up due to our having one of our small half-ton wagons outside at the Show."

Equally convincing are these words from the Lansden Company—

"We can directly trace four retail sales to our exhibit at the Show at which our new 1000 lb. chainless drive model created a very decided interest. One of these sales came by way of long distance telephone Saturday afternoon from western New York, as a result of a visit to our exhibit earlier in the week."

The president of the Ward Motor Vehicle Company writes—

"I understand from our Sales Department that this was one of the best electric shows we have ever had in New York City from the interest standpoint and you may be assured that we very genuinely appreciate the opportunity your Company has afforded us of having a part in this exhibit."

An awakening to the possibilities of the electric vehicle is indicated by the following paragraphs from the C H Motors Corporation, Agents for the Oneida truck.

"We feel we have been given a most excellent opportunity to display the Oneida Motor Truck to a number of interested New York buyers at this Show and have every reason to believe that from among the thirty or forty prospects revealed it will be possible to realize some sales in the near future.

As manufacturers of gasolene trucks and experienced as gasolene truck salesmen, our natural inclin-

Photographs by The New York Edison Company

Street Trucks, Passenger Cars, Batteries, and Accessories were Shown During the Week of Jan. 29—February 5

ation in the past has been to give our complete attention to gasolene trucks, almost to the exclusion of interest in electric trucks. The information and data obtained during and as a result of our participation in the Show has made us realize we have been neglecting a big business opportunity and will undoubtedly cause our company to become actively interested in the electric truck business."

The Cowan Truck Company writes, among other things—

"We have received a few very nice inquiries and especially two that we believe will turn immediately into firm orders. There was greater value in this exhibit to us than can be readily realized, especially along the lines of free advertising toward our competitors, who now know that we have something to make them sit up and take notice. We will keep you advised as to any sales that have come definitely from your good efforts, as I know you are as interested in this as we are."

From Fink-Dumont-White Inc. was received the following letter

"We want you to know that we feel that this was the most worth-while exhibition in which the writer or any of his associates have ever had experience. Real prospects visited us, and we can think of no way in which you can encourage manufacturers of material handling equipment than to make this excellent Show an annual event."

"We do not hesitate to say that it was for business and otherwise one of the most successful shows ever held in the City of New York, and we want you to know that we feel greatly indebted to yourself and The New York Edison Company for giving us the opportunity to exhibit our product under such favorable conditions."

The Edison Storage Battery Company writes:

Equally encouraging is the letter from the Philadelphia Storage Battery Company which contains these lines -

"I have every reason to believe that this unique event will prove a stimulus to the electric vehicle business, thereby tending to place it on a plane where we believe it belongs. We are encouraged in this outlook because we received a considerable number of valuable inquiries concerning the Philadelphia 'Diamond Grid' Battery."

The Electric Storage Battery Company includes in its letter the hope that

"It is the beginning of a custom which will be continued from year to year and I am sure that it will gather force and have an influence on the electric vehicle industry each year."

The Karry-Lode Industrial Truck Company expresses its gratification in these words

"We want to take this early opportunity to congratulate you on the very apparent success of the First Annual Electric Automobile Show. We feel very gratified by the excellent co-operative spirit displayed by The New York Edison Company, by the battery manufacturers and our competitors and we feel sure that this exhibition continued annually and there-

Photographs by The New York Edison Company

Industrial Trucks, and Other Types of Material Handling Machinery were Shown During the Second Week of the Show

by made an institution will bring about immeasurable results for the electric industrial and commercial truck industry."

In the following Rauch and Lang Inc. report the actual closing of a sale.

"Several visitors to the Show made very favorable comments on its attractiveness and we are specially pleased, as we received a great many new prospects and made one actual sale at the Show."

Since the close of the Electric Automobile Show word has been received that similar expositions are being considered by other central station companies. The first to announce definite plans is the Public Service Electric Company of New Jersey, whose big salesroom in the Terminal Building in Newark, will be turned over to the electric vehicles from April 9 to 16.

Printers' Trucks

To have your monthly magazine reach you on the same day of the month during all the year, to find stories of the screen people and their doings on your library table with assured regularity, and to know that these and numerous other magazines can be depended on to arrive at a designated time, argues not only well organized printing and composing departments but the presence of transportation equipment of the very highest order.

Photograph by The New York Advertising Company

Loading One of the Six-Ton Trucks. Bundles of Magazines Are Carried from the Bindery to the Shipping Department on Portable Platform Skids

At 36th Street and Tenth Avenue stands the building that houses the Carey Printing Company, Inc, printers of Harpers Bazar, Le Costume Royal, Shadowland, La France and many other periodicals, trade papers and advertising booklets. The same care that was applied to the selection of inks, printing presses and

binding machines was also applied to the selection of a type of truck that would do the delivery work in the most dependable fashion and with the greatest economy.

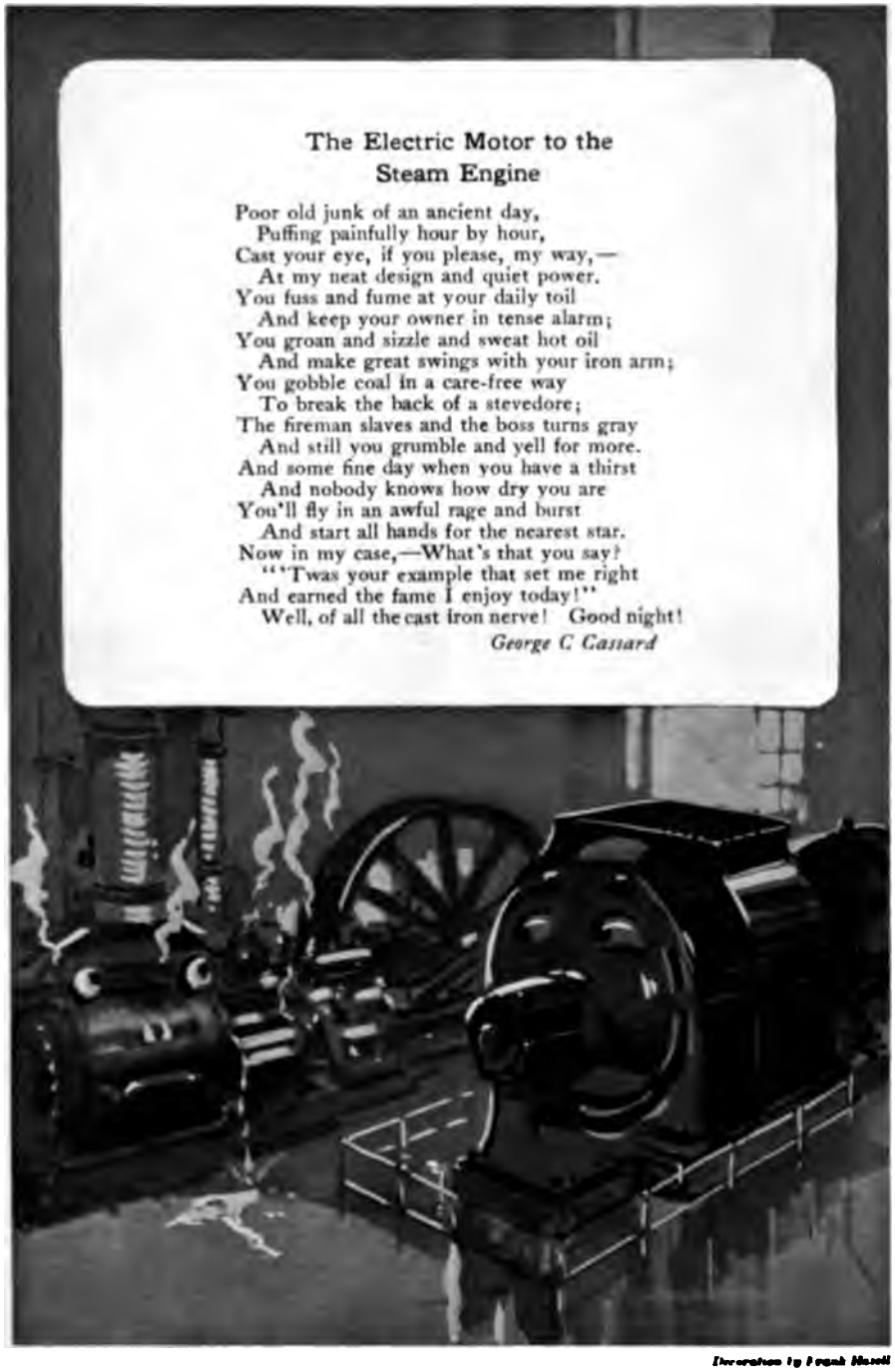
Four years ago the company bought three five-ton electric trucks and, having watched the performance of these and checked up their cost, augmented the fleet by the addition of two more trucks in 1919. The latter cars were built by The Lansden Company and are of the six-ton, chain-driven type. One gasolene truck is maintained for long-distance deliveries, but all other hauls are made by the electric vehicles. An average of between fifteen and seventeen hours daily has come to be the rule for these cars, and an overload of from one half ton to one and a half tons is regularly added without any undue stress or strain. Four or five loads every day are carried by each electric truck and the material consists of packages of magazines and periodicals whose weight approximates between twenty-five and forty-two pounds for each bundle. A truck is sent on its way with from four hundred to six hundred of these packages.

Early Morning Trips

At the beginning of the day the electric trucks do some of their hardest work, it being a common thing for the Carey Press to deliver thirty thousand pounds of printed matter before nine o'clock, while toward the end of the day the bulk is nearly as great. So reliable and sturdy have the electric trucks proven themselves that the Carey Printing Company is considering the installation of its own charging equipment, and may soon be in a position to garage its own cars and operate them as a unit whose cost shall be borne by a separate organization, and allowed for as such, instead of including their cost in the general overhead expense.

Under the direction of Mr H C Praeg, superintendent of the plant, the work of the Carey Printing Company is done in two shifts, day and night, and the presses are almost never still. On the floor which is the scene of the Hand-Binding and Shipping Department the printed matter, just off the binding machines, is tightly wrapped in convenient packages and piled on raised wooden platforms known as "skids". The weight of these skids when loaded is about six hundred pounds or more, and is too great for handling by unassisted manpower. To meet this need the company has installed Cowan Transveyors and these are run under the skids, the mechanical levers are operated and then one man can pull the load.

From the Cowan Transveyors the packages are lifted to the electric trucks and are then delivered at their several destinations throughout the city. The process of placing the bundles on the trucks is so timed that while one truck is being filled another has already started on its journey. The policy of the Carey Press has made it possible for all expenses of trucking cost to be met by the revenue received from carrying loads for outside firms as well as for their own corporation. After four years experience with the storage battery vehicle, the Carey Printing Company has found that no other mode of transportation so adequately meets their city haulage requirements.



The Electric Motor to the Steam Engine

Poor old junk of an ancient day,
  Puffing painfully hour by hour,
Cast your eye, if you please, my way,—
  At my neat design and quiet power.
You fuss and fume at your daily toil
  And keep your owner in tense alarm;
You groan and sizzle and sweat hot oil
  And make great swings with your iron arm;
You gobble coal in a care-free way
  To break the back of a stevedore;
The fireman slaves and the boss turns gray
  And still you grumble and yell for more.
And some fine day when you have a thirst
  And nobody knows how dry you are
You'll fly in an awful rage and burst
  And start all hands for the nearest star.
Now in my case,—What's that you say?
  "'Twas your example that set me right
And earned the fame I enjoy today!"
  Well, of all the cast iron nerve! Good night!

George C Cassard

Illustration by Frank Hazell

landmarks in the city. Among those razed to make room for the Canadian Pacific Building was St Bartholomew's church, which stood on the corner of E 44th Street and Madison Avenue. The corner store of the new building and the rear of the second floor will be occupied by the Canadian Pacific Company. They will sublet a part of the large store they have acquired. The New York offices will be fitted up more beautifully than even the main offices at Montreal, which are said to be the handsomest in Canada.

The electrical equipment of the Canadian Pacific Building includes, besides the most modern system of illumination, ventilation, and house pumps, an installation of fifteen elevators. In the main group are twelve high-speed cars, six express and six local. In the 43rd Street corner wing there will be an elevator to serve the first four floors, and in the middle wing there will be a private car for the first three floors. A sidewalk lift will be installed on the 44th Street side of the building.

Central Station Service will supply the electric current necessary for this equipment. Electric current as supplied through Central Station Service is as dependable as the sun. Indeed, one of its greatest values lies in its dependability. This, combined with its economic advantages, makes it the most desirable source of electrical supply.

Photograph by Byron Co, Inc

Madison Avenue from Forty-third to Forty-fourth Street Before Work on the Canadian Pacific Building Was Started

District Offices of The New York Edison Company

Contract and Inspection Department

Broadway District

Office at 424 Broadway, David T. Brown, Manager; Telephone, Canal 8600. Boundaries: The Broadway District includes the territory south of Christopher and Eighth Streets, west of the Bowery, and south of Catherine Street.

Norfolk Street District

Norfolk Street Office at 20 Norfolk Street, L P Bendall, Manager; Telephone, Orchard 4261. Boundaries: The Norfolk Street District includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catherine Street.

Irving Place District

Office at 10 Irving Place, S F Fahnestock, Manager; Telephone, Stuyvesant 5600, Extension 405. Boundaries: The Irving Place District includes the territory between and including Eighth Street and Twenty-eighth Street from the East to North Rivers.

Forty second Street District

Office at 124 West 42nd Street, W M Kerr, Manager; Telephone, Bryant 5262, Extension 98. Boundaries: The Forty-second Street District includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to the North Rivers.

Eighty-sixth Street District

Office at 151 East 86th Street, H S McGrath, Manager; Telephone, Lenox 7780. Boundaries: The Eighty-sixth Street District includes the territory north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park West.

One Hundred and Twenty-fifth Street District

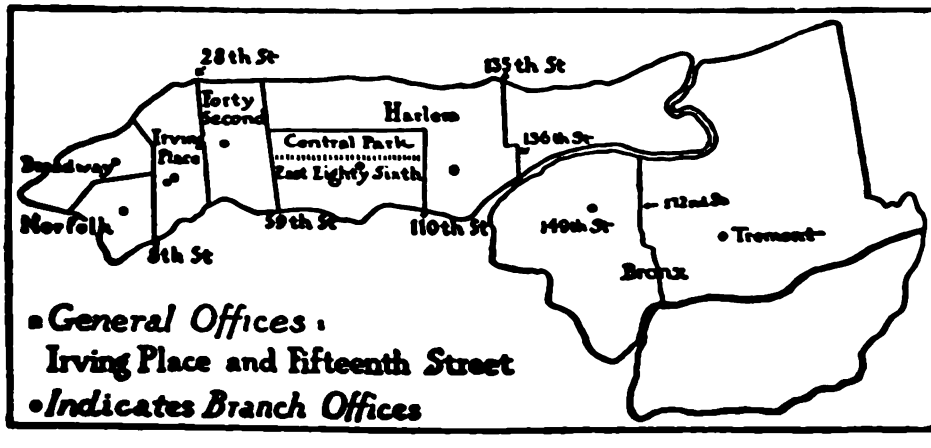
Office at 15 East 125th Street, William J Meara, Manager; Telephone, Harlem 4020. Boundaries: The One Hundred and Twenty-fifth Street District includes the territory bounded by the North River, Fifty-ninth Street, Central Park West, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St. Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St. Nicholas Avenue.

Bronx (One Hundred and Forty-ninth Street District)

Office at 362 East 149th Street, William A Ruenzler, Manager; Telephone, Melrose 9900. Boundaries: All territory lying between the Harlem and Bronx Rivers and between One Hundred and Thirty-second Street and East One Hundred and Seventy-second Street. The dividing number between the One Hundred and Forty-ninth Street Office and the Tremont Avenue Office, on all avenues with the exception of Third and Park Avenues, is 1499. On Third and Park Avenues, however, the dividing number is 3799.

Bronx (Tremont District)

Office at Tremont and Monterey Avenues, Albert Goldman, Assistant General Commercial Manager, Bronx District; Telephone Tremont 6900, Extension 225; Richard Goff, Manager, Tremont Avenue Office; Telephone, Tremont 6900, Extension 100. Boundaries: The territory covered by the Tremont Office extends from approximately One Hundred and Seventy-second Street, north to Yonkers City line; all territory lying between the Harlem River and Two Hundred and Twenty-fifth Street, and the Hudson River from Two Hundred and Twenty-fifth Street to Yonkers on the West, and the Bronx River on the East, including Woodlawn, Spuyten Duyvil, Riverdale and Mount Saint Vincent Districts.



The EDISON Monthly

MAY 1921

THE NEW YORK EDISON COMPANY
Irving Place & 15th Street, N.Y.

The Electrical Directory
and the Edison Show-rooms

THE very great increase in the number of names listed, and consequently the broadened scope and added importance of The Electrical Directory make it necessary to issue it as a separate publication rather than as a department of THE EDISON MONTHLY. The Directory in its new form will be distributed partly by mail and partly through the offices of The New York Edison Company. It will be sent without charge to anyone upon request.

The Electrical Directory is published for the purpose of rendering the greatest possible assistance to those desiring to use Edison Service for any purpose. Its lists include the names of dealers in every form of electric appliance, manufacturers or their agents, and contractors who do electrical work in the territory served by this Company. So far as is possible, the accuracy of each name and address is carefully verified.

Another object of the Directory is to give to every manufacturer, agent, dealer, and contractor an equal chance with those desiring to purchase devices or to have equipment made.

The Company desires to encourage the establishment of the largest possible number of dealers in electrical devices, appliances, and incandescent lamps, and of independent electric contractors who do satisfactory work at fair prices. It is believed that this policy is in keeping with the public interest, and is aided through a directory of this nature.

Each manufacturer or agent has equal right to free space, electric current and demonstration in the various show-rooms of the Company, and equal endorsement by the Company's representatives when talking with prospective purchasers. The Company's representatives are forbidden to recommend any particular device as compared with another, and final choice in the purchase must rest with the purchaser.

It might be added that the Company itself makes no sales (other than of incandescent lamps), nor does it install any kind of electrical equipment upon the customer's premises, other than directly identified with its service and meter. Appliances are shown and demonstrated, and an order from the purchaser will be received and transmitted to the manufacturer or agent of the appliance selected, without commission or charge of any kind for this service.

The New York Edison Company

May 1921

The Old Arsenal at White and Elm Streets

VOLUME 13

CONTENTS

NUMBER 5

The Edison Monthly

	Page
The Electrical Directory	Inside Front Cover
Editorial	66-67
The Benighted Owl (Verse)	68
Watts in a Name	68
Mushroom Farming	71
Electrical Show in Armory September 28-October 8	73
AUTomatic Telephoning	74
Electrical Power (Verse)	77
The Refrigeration Show	78
The Commercial Truck Company's New Factory	80
Heating and Ventilating Shows in June	81
The Town Hall	82
Edison District Offices with Map	Inside Back Cover

Copyright 1921, by The New York Edison Company

The Edison Monthly

Published by

The New York Edison Company

General Offices

Irving Place and Fifteenth Street

New York City

N F Brady, President
Walter Neumuller, Secretary
Frederick Smith, Treasurer

In the opening of a new electric vehicle factory having nearly four times the capacity of the former plant may be read a prophecy which augurs well for the future of the industry.

The Commercial Truck Company is to be congratulated upon the foresight and business courage which brought this new plant into being. The whole electrical industry unites in expressing the hope that the day is not far off when the present plant, as that which preceded it, shall have reached capacity production.

That the day of the all-electric home is not far off is strikingly illustrated by the interest in the model apartment arranged in one of the buildings of the Queensboro Corporation, at Jackson Heights, Queens.

Here is shown a suite in which every one of the customary tasks of housekeeping is performed by electricity. And not only does electricity bear the burden of cooking, dishwashing, house cleaning, and laundering, but it serves as an aid to health through the medium of heating pads, vibrators, radiators, bottle warmers, and violet ray outfits, and contributes to the pleasures of life through a player piano, a phonograph, well selected lighting fixtures and attractively designed portable lamps.

The announcement of the display brought great numbers of interested persons. In view of this interest there can be no doubt that the home seekers of today wish not only to provide themselves with the best in electric labor-saving devices, but also to assure themselves that their homes are arranged to permit the most efficient use of this equipment. Inquiries regarding the current carrying capacity of wires, the location of fixtures, the provision for extra outlets in the baseboards and floors were among the questions frequently asked.

"We are really experts in making weather which is best suited for mushroom growth. Sunshine, wind, rain, moisture, fog, heat, cold, and even lightning are at our command and in our control. With the help of science we have been able to operate our mushroom plantation 365 days in the year, something never attempted before in this country."

In this statement by Mr A G Hupfel of the Hupfel-Carrar Mushroom Plantation there is just a hint of the part electricity plays in the cultivation of mushrooms. Unfortunately for those whose interest is aroused, a fuller explanation of electricity's part is not possible now.

Mushroom growing, with crops rotating the year round, is unusual enough in itself. Add to it the fact that the industry represents the post-prohibition activity of a former Bronx brewery, and that electricity plays an important part in the creation artificially of the various weather

conditions needed and you have an idea of the combination of circumstances that has resulted in what may perhaps be called New York's strangest industry.

While the use of electricity for advertising purposes may generally be supposed to be a by-product of electric lighting, the fact remains that electrical advertising followed so closely the development of the incandescent lamps for illuminating purposes that, in the matter of years, there is little difference between them.

During 1881 Thomas A Edison perfected his plans and installed his Central Station lighting system in New York. September 4th of the following year saw the plant placed in operation. During this same year, in London, William J Hammer as Edison's representative was planning a lighting system for the city, and also for the Crystal Palace where the first International Electrical Exposition was to be held. As part of his contribution to the exposition he built an electric sign, and, in January 1882, with the opening of the exposition this sign was placed in operation.

Thus 1921 is the fortieth anniversary of the constructing of both the first electric sign and of the laying out of the first electric lighting system in the world.

Later, Mr Hammer, while chief engineer of the German Edison Company, invented and placed on the Edison Pavilion in the Health Exposition in Berlin the first motor-driven flashing sign.

But while these early years proved the possibilities of electric sign operation, there were many factors which combined to retard the development of this branch of the electrical industry. First the lamps themselves were very costly—a matter of about a dollar each; the price of current was considered prohibitive; the central stations were comparatively small; and there was little night life because the streets were so poorly lighted. Added to this, the lamps available were too large for satisfactory use in signs.

Eventually, with the enlarging of the central stations, the development of smaller lamps, and reductions in current cost, the sign began to come into its own and in 1892 New York saw its first big electric sign display at the junction of Fifth Avenue and Broadway.

At this fortieth anniversary THE EDISON MONTHLY takes pleasure in extending to Major Wm J Hammer, for his early contributions to the science and to those manufacturers who have done so much to develop the art of electrical advertising, its heartiest congratulations.

Just how far one desires to go in the matter of an automatic existence may be a matter for considerable discussion. As for telephoning there can be no doubt that the introduction of the dial method of calling will be welcomed.

The New York Telephone Company, as related elsewhere in this issue, is now installing the equipment in New York, enlarging present buildings and erecting new structures, and in a few months, in many parts of the city, "The Voice With a Smile" will be but a pleasant memory.

Watts in a Name

THE necessity of commenting on the virtues of anything so capable of talking for itself as the electric sign, may at first thought seem something of an anomaly. Yet with all its attention-compelling powers and its subtle capacity for firmly implanting the seeds of desire —all of which it exercises so freely for others — the electric sign seldom takes advantage of its position to talk for itself. Closely related as it is, not only to electrical development but also to the merchandizing of products of every character, the sign, if it would, could tell a wonderfully interesting narrative.

Historically, this advertising medium is as old as the electric lighting industry itself, the first sign having been made in 1881 and displayed the following year. It will be recalled that New York's present electric lighting system was laid out during 1881 and started in operation in September, 1882. Thus 1921 is the fortieth anniversary of two epoch-making events in electrical history. This first sign was made by William J Hammer, the representative of Thomas A Edison in London. It consisted of six letters spelling the great inventor's name and was exhibited in the Crystal Palace in London in January, 1882, during the International Electrical Exposition. The name was spelled out letter by letter by means of a hand operated commutator and the whole name was flashed on and off by means of a cumbersome hand switch.

The next ten years saw rapid development in sign designing. One of the most important improvements was the application of the electric motor to the operation of the letter changing equipment. This, of course, made possible the great advance which resulted ultimately in the spectacular displays of the Great White Way.

The first of the big Broadway signs was erected in 1892, on the site of the present Flatiron Building. It faced north and told passengers on the Broadway horse cars and the Fifth Avenue omnibuses that Manhattan Beach was "Swept by Ocean Breezes," It also mentioned the Oriental and Manhattan Hotels, Gilmore's Band and Brock's Fireworks. Channel type letters were used and 1457 lamps of various colors were employed. The sign was of the flasher type and was operated by hand. Nightly, from dusk until eleven o'clock, the

The Benighted Owl

An owl came to the city, great,
And resting from his flight
Said "I have heard the haunts of men
Are interesting at night;

I flew here when the sun had set
But find a brilliant day,
Where is the night? enlighten me,
For Hoot! I am astray:—"

The Ad. man said, "Benighted bird
Be careful where you park;
Don't sit on an electric sign
And talk about the dark!"

Wanda Moore

operator stood by his switches to flash his messages on and off. Imagine controlling the Wrigley acrobatic troupe by hand-operated switches.

In the irresistible northward trend Madison Square was soon left behind as the centre of night advertising and so today one must stand at Times Square to see the displays. There is not a square foot of skyline which does not proclaim the virtues of something to eat or drink or wear. The message is read and remembered by the thousands who nightly throng the great thoroughfare. While it is probably true that your first impressions are of wonderment at the seeming magic of it, the fact remains that you will be influenced the next time you are about to make a purchase.

The primary purpose of the large electric sign of the Broadway type is to send its message on a national scale rather than to try to influence the individual to stop at once and buy a new suit of underwear. How this operates is strikingly illustrated in an incident reported by one of the big advertisers. About two weeks after the sign was erected the western salesman wrote to the firm, "What kind of electric advertising are we doing in New York? I called on John Jones here today, and he immediately began to talk about our new sign which he had seen when he was east last week." It is natural to assume that the conversation about the sign opened the way to talk about the firm's goods and that an order followed. The fact that in addition to the hundreds of thousands of sight-seers and other visitors, from two to three thousand

Photograph by The New York Edison Company

The Three Principal Types of Outdoor Signs Are Represented in This Picture of the Great White Way—the Big Sky Signs of The National Advertisers; the Displays of the Theatres, and the Store Door Signs of Retailers

buyers are registered every day in New York hotels during the seasons explains the tremendous part electric signs play in National advertising.

But if the big spectacular display on Broadway is intended to have a national effect there are other signs whose purpose is purely local. These are the signs on theatres, in front of restaurants and over amusement parks. While not so elaborate as the big signs in the sky, they nevertheless present many startling effects as their lights blink on and off.

The third type of sign is that which hangs over the door of the retail shop and in one word says that "Shoes" or "Flowers" or "Candy" or some other staple product may be bought there. Sometimes the proprietor's name is added. The primary purpose of such a sign is to point the location of a particular store. Within the store one may find still a fourth sign—the directional sign so-called—which says that men's goods are down this aisle or that hardware is in the basement.

When one considers the great number of electric signs of all kinds and types and sizes the thought naturally arises, "Does it pay?" To attempt to analyze the results which are traceable to electric advertising is far beyond the limitations of this brief article. And anyway, what better evidence of the profitableness of electric advertising could one ask than the signs themselves. Surely the electric advertising art could never have reached its present magnitude unless the users of this form of advertising—those who pay for the signs—were convinced that their money would come back to them. There can be no question but that the prestige which goes with a nationally known sign is a great factor in influencing sales.

Does electrical advertising pay? Ask the man who advertises. He knows.

The Beginning of the Great White Way—Broadway, Twenty-third Street and Fifth Avenue, in the Days of Horse Cars and Stage Coaches

Mushroom Farming

ONE who has visited the mushroom caves of France, or has seen the cultivation of the edible members of the fungi family in the abandoned quarries of our own country, will probably have to stretch his imagination considerably to give credence to the report that the raising of this plant bids fair to become one of the leading food industries of the city.

"But where is New York going to find caves and abandoned quarries for mushroom growing"? the skeptic may ask.

Freshly Picked from the Beds of New York's Mushroom Cave

The answer goes back to 1919 and the coming of prohibition. With the brewing and sale of beer stopped, the brewers sought other manufacturing activities which could be adapted to the existing equipment of their buildings. In addition to complicated machiney, every brewery has extensive cellars for storing the kegs of beer during the fermenting stage.

It was the cellars that gave the idea to Mr A G Hupfel, Jr, of the Hupfel Brewery in the Bronx. The Hupfel cellars are hewn from solid rock and extend deep into the hilly ground that surrounds the brewery. "Just the thing for mushrooms," thought the brewer, and forthwith the idea began to take form.

That the Hupfel interests are definitely committed to the new industry regardless of the possibilities of marketing half of one per cent brew, is indicated by the new sign over the office, "Hupfel-Carrar Mushroom Plantation" and the piles of scrapped brewery equipment which littered the yard while the changes were being made. Included in the dismantled machinery was the electrical generating plant which formerly supplied the needs of the brewery, for with the change of business came also the change in the supply of electricity.

The electrical requirements incidental to mushroom growing are being supplied from the lines of The New York Edison Company. There are two hundred incandescent lamps which light up the dim recesses of the deep and winding caverns, while three electric motors supply the power needs of the industry. One motor is of fifteen horsepower and two are of one quarter horsepower each.

Although the mushroom farm was started in the cellar, it now occupies every one of the upper floors of the building—a radical departure from

the old belief that mushrooms must be grown in dark caves and an indication of the development that is possible through the application of modern methods. It is here that electricity plays one of its important parts, although just what this part is, is, for the present, one of the secrets of the new industry.

Gathering of Crops Is Not a Matter of Seasons at the Hupfel-Carrar Plantation Where Electrical Equipment Helps Make Weather to Order

A hint may be gained, however, from Mr Hupfel's statement. "This phenomenon is only possible because the most modern devices are used in the way of securing proper conditions for the development of mushrooms. We are really experts in making weather which is best suited for the various stages of the growth of the plant. Sunshine, wind, rain, moisture, heat, cold and even lightning are at our command and in our control. With the help of science we are able to operate our plantation 365 days in the year, something never attempted before in this country. As a result, mushrooms are picked every day in the year."

When the farm was started the French Bed System was used and about 100,000 square feet of floor space was required. The French system consists of narrow, rounded mounds of rich loam extending in parallel rows along the floor. The system represents considerable waste of overhead space, so it was decided to work out a new method which should avoid this loss of room.

As a result, the American system, built on the skyscraper plan is being installed. In the American system, the earth is spread in trays which are tiered from the floor to the ceiling. Even in the lowest cellars this gives at least three beds instead of one and in places where ceiling is high the tiers are carried up to the sixth level. With this system there are now 300,000 square feet of beds which yield more than two hundred thousand pounds a year.

Recently Mr Hupfel appeared before the Ways and Means Committee of Congress to urge the establishment of a duty on imported mushrooms.

"About 9,000,000 pounds of mushrooms have been imported from

Europe yearly," he said, "and American growers have supplied about 1,000,000 pounds. Workers in France are employed at an equivalent of $10.00 a week, while we pay our men $30.00 to $35.00 a week. Naturally they can export their product and supply the middleman with it at a low figure. The curious feature of the situation is that the foreign product does not sell cheaper than our own. The middleman simply boosts the price to match the figures quoted by domestic producers."

The Hupfel plant furnishes almost every hotel in the city with its mushrooms. Its fame has spread to all parts of the world and communications asking information about the enterprise have been received from other brewers, who are seeking new industries for their properties.

Electrical Show in Armory Sept 28 to Oct 8

It has been announced that the New York Electrical Exposition will be held at the 71st Regiment Armory, Park Avenue and 34th Street, New York, during the ten days beginning September 28th.

With the Grand Central Palace no longer available for exposition purposes the show management was confronted with the problem of finding a place that combined suitable floor arrangements, facilities for handling the exhibits, and accommodations for spectators.

As in former years, the 1921 show will feature electrical equipment for the home, motor-driven machinery for industrial purposes, electrically operated material handling machinery and electric vehicles.

The Old French Method and the New American Method of Arranging Mushroom Beds. Note the Space Saving that Results from the Tiering Arrangement

AUTomatic Telephoning

WHEN the new building which the New York Telephone Company is erecting on East 30th Street is completed another huge telephone central office building will be added to the large number in New York City. While not so large as the mammoth Walker-Lispenard or the Bowling Green telephone buildings, the area of the plot upon which it is built exceeds that of any other telephone central office building in the city. This new building was erected to provide additional facilities for the growing demand for telephone service in New York City. It will be one of the first exchanges equipped with machine switching apparatus, and the extensive electrical needs will be supplied by The New York Edison Company.

The removal of the old building from this site was started on September 8th, 1919 and excavation for the new foundation began on October 27th, 1919. This work was greatly hampered by the amount of snow which fell during the winter and it was not until June 18th, 1920 that the erection of the steel began.

It is expected that the building will be completed on or about June 1st. This telephone building is in the form of an "L" and extends through from 30th Street to 31st Street, a distance of 197½ feet. The 30th Street frontage is 170 feet and the 31st Street frontage is 101 feet. It is an eight-story-and-basement building constructed of steel and brick, and will have a cubic content of 3,224,000 cubic feet.

The first floor will be a terminal and switch room, in connection with a machine switching central office. The second floor will be occupied by other apparatus in connection with machine switching and will also have quarters for operators. The third floor will be occupied by a second machine switching unit. Other floors will be utilized for general offices of the Telephone Plant Department and for other telephone purposes.

Like other telephone buildings this structure is as nearly fireproof as modern construction can make it. Every known precaution has been taken to safeguard the lives of persons working in the building and to remove the hazard of destruction by fire of the costly apparatus it will house.

As in all buildings which the Telephone Company has constructed recently there is included in this building a fire tower which affords an enclosed fire-escape in a separate fireproof building. Access to this fire-escape is gained through two separate doorways. The first leads from the main building to a balcony and the

Photograph by The New York Edison Company

The New York Telephone Company Building at East 30th Street. McKenzie, Voorhees and Gmelin were the Architects, and the Builders John J Downey, Inc.

second leads from this balcony into the fire tower proper. In addition to this there are three stairways enclosed with fire-proof walls and doors.

While the building itself will probably be completed by the first of June it will be sometime before the new apparatus can be installed and placed into operation.

The electrical installation calls for eight eighty-horsepower and four fifty-three-horsepower generator sets and 640 one-sixteenth-horsepower duplex motors for the operation of the machine switching apparatus. The building will be lighted by 1500 lamps and the elevators will be operated by motors totaling 105 horsepower.

The erection of this and the enlargement of many of the other telephone buildings calls attention to the company's plan of replacing the present manual system of transmitting calls with the dial or automatic system.

AUTomatic Service This Year

Before the end of this year New York City will probably have several new machine switching central offices. The first exchanges to operate by the new method will be Pennsylvania, Academy and Walker. This type of mechanical switchboard as adapted for use in New York City represents the results of years of investigation and improvement by engineers of the American Telephone and Telegraph Company.

The introduction of the new service into New York City will of necessity occupy a number of years. Wherever practicable it will be installed in all new central offices or wherever worn-out equipment makes replacement necessary.

To make a call with the new machine switching telephones a subscriber lifts the receiver from the hook and a more or less mysterious mechanism at the central office gets into action, selects the subscriber's line and automatically connects it with an idle sender. When this is done the subscriber will hear a low humming sound called a dial tone, which indicates that the line is not busy and that the apparatus is ready to receive the call. By the use of the dial which is attached to the new instrument he may then dial directly any call other than toll or long distance, by dealing the first three letters of the central office name and the number which must consist of at least four numerals.

The actual electrical and mechanical means employed in completing calls are rather too complicated for this brief article.

In New York City there are over 900,000 telephone stations served from 101 central offices. Every one of these near-million stations can secure immediate connections with any one of the other stations and besides these local connections there are the thousands of long distance and toll calls involving extra charges, which must be cared for and recorded.

The demands for telephone service in recent years has been phenomenal. In the financial district of New York City these demands have more than doubled in the last five years. The Telephone Company is constantly adding to its huge system, enlarging existing buildings and erecting new buildings.

Electrical Power

The Nation Builder, silent, titan power;
A mighty pulse that throbs from coast to coast;
And flows through wheels of industry that whirl
And leap to life. The hand of man is armed
With strength undreamed of in the sleepy past.
He flies to dizzy regions of the air;
His words flash out across the barren seas;
And when night spreads its shadows o'er the land,
Vast cities blaze against the firmament,
As symbols of his progress and his skill.

The Nation Builder, from the rock-ribbed hills,
The waterfalls, and caverns of the earth,
From out the silent centuries it comes
To do its task among the marts of men.
Half understood, yet granting more and more,
The Nation Builder, may its work go on,
To lift against the future's tinted dawn,
A structure perfect, as the home of man!

George B Staff

Decorations by Louis Crump

The Refrigeration Show

VISITORS to the Electric Refrigeration Exhibit at the Irving Place Showroom of The New York Edison Company, during the first week of April received two distinct impressions; the first concerned itself with the remarkable progress, as evidenced by the number of exhibits, that has been made in this field during the past few years, and the second was due to the interest which the public in general is taking in the subject. That there is a wide popular interest in electric refrigeration was indicated beyond question by the constant stream of visitors.

One manufacturer, who at first was rather skeptical about taking part, became so enthusiastic before the week was over that he made application for the same space at next year's show.

Those concerned with the more material aspects will see evidence of popular confidence in the electric refrigerators, in the report of actual sales of seventeen machines during the show week. The securing of good leads was reported by every exhibitor.

The Exhibitors

The Audiffren Refrigerating Machine Company operated their equipment in connection with a drinking fountain, supplying ice-water to visitors.

The Carbona Machine, made by Esher, Wyss & Company in Switzerland, and sold in this country by Jos Roschach, attracted considerable attention. Among the air-cooled household machines were the Williams-Simplex, the Kelvinator, and the Frigidor. Several models and a number of sectional parts were included in the Frigidaire exhibit. A number of pieces of the light Balsa wood of which the box is constructed added interest to the Frigidor exhibit.

The Clothel Company showed two models of the larger sized boxes and the Isko Company had an interesting demonstration showing the refrigerating cycle in their machines.

The Norwalk Refrigerating Plant, one of the type designed for basement installation with pipe supplying the ice box upstairs was shown.

The Brunswick Refrigerating Company and the Shipley Construction and Supply Company showed machines suitable not only for dwellings but for commercial installations as well. Included in the commercial exhibits was the Poole Refrigerating Machine shown by Fairbanks, Morse and Company, and operated in conjunction was a show window display of poultry.

It is estimated that not less than one hundred visitors an hour examined the exhibits. They represented four distinct angles of interest. By far the largest group consisted of tradesmen and merchants who wanted to know about equipment for retail shops; almost as numerous were those who were interested in equipment for the home. Professional men, engineers, and engineering students were included in a third group, while the fourth and smallest group was made up of those who desired to establish selling agencies in other cities.

Photographs by The New York Times Company

Some of the Different Types of Electrically Operated Refrigerators Which Were Demonstrated in the Edison Showrooms During the Week of April 4 to 9

Commercial Truck Company's New Factory

FOR fifteen years the Commercial Truck Company has been building electric trucks. Vehicles built in the plant of this company in Philadelphia are in service in almost every city in the country. Quite naturally, the organization has grown with the years and it celebrated its fifteenth anniversary by opening a new factory to meet the increased demand for its trucks. Saturday, March 19th, witnessed a notable gathering as the new establishment was dedicated to the service of the transportation needs of the country.

The plant is of the most modern type, single story, saw-tooth construction. Its capacity is nearly four times that of the old factory and by employing three shifts this of course can be trebled. Yet large as the plant is, provision has been made for two new sections each as large as the present building. Since the water system, sewers, heating lines and electric wiring are already provided, these additions can, when needed, be erected within three months time. The machine shop, assembly floor, wood working plant, and paint shop are equipped throughout with the most up-to-date electrically operated machinery. Motor driven blowers and electrically heated furnaces are part of the forge shop and foundry equipment. There is also a large steam plant for heating purposes, but all the power requirements are supplied from the lines of the Philadelphia Electric Company.

Through all the years that the Commercial Truck Company has been building vehicles, the first truck turned out by the factory has been giving economical and reliable service for its owners. This old timer is a five-ton machine which was put in service by the Pennsylvania Railroad in 1907. It has the four-wheel drive, the motors being geared direct to each wheel. This direct gearing of the motors to the wheels is an exclusive feature of the C-T trucks.

Although the Commercial Truck Company has been building electrics for fifteen years it is only recently that the products of the company have appeared in any great numbers in New York. Among the familiar C-T installations are the fleet of the Automat; the cars of John Wanamaker; the truck of The New York Edison Company which made the 96-mile run from Philadelphia to New York last fall; the ambulances

The Forge Shop and Foundry at the New Factory of the Commercial Truck Company

The New Factory of the Commercial Truck Company in Philadelphia Is Designed to Meet Not Only the Present but Future Demands for Electric Trucks

of the New York Hospital; the Brooks Brothers delivery wagons; the big vans of the Manhattan Storage Warehouse; the wagons of the New York Linen Supply Company; and the pie wagons of the New York Pie Baking Company and the American Pastry and Manufacturing Company.

The electrically operated vehicles of the Paterson Fire Department, described in the February EDISON MONTHLY, were built by the Commercial Truck Company, as were a number of pieces of equipment used by the Philadelphia Fire Department, and the Camden, N J, Fire Department.

With the opening of the new plant the company began immediately the execution of the orders for three large electric truck fleets. One of these fleets will come to New York for James A Hearn & Son, Inc. It will consist of twelve 1000-pound vehicles and will bring the present Hearn fleet to more than fifty electrics. The Southeastern Express Company has ordered a number of trucks for use in Washington, Baltimore, Norfolk and Richmond. Express wagons to handle the baggage of vacationists at Atlantic City are being built for the Union Transfer Company.

Heating and Ventilating Shows in June

Two exhibits of great industrial importance are to be held in the Irving Place Showroom of The New York Edison Company in June. The first will be devoted to electric heating equipment and will be held during the week of June 6–11. During the week beginning June 20th, a demonstration of electrically operated ventilating equipment will be held.

Plans for the Heating Show are well advanced and practically all of the electrical appliances for industrial and domestic heating which have been perfected during the past five or ten years will be exhibited. Forty-one manufacturers have accepted The Edison Company's invitation to take part and at least one hundred different industrial and domestic applications of electric heat will be shown. Apparatus for candy makers and for use in shoe factories, printing plants and other industries, will be exhibited and demonstrated.

The Ventilating Display will include air conditioning equipment such as humidifiers and apparatus for temperature control, and various types of fans for home, office, and industrial establishments.

The Town Hall

IN the erection of The Town Hall at 113-123 West 43rd Street, a dream of a quarter of a century has been realized. This civic auditorium gives New York City a building where public meetings may be held for those interested in political discussions, the moulding of public opinion, and the reaching of public decisions.

Ever since men formed that institution called "society" they have met together for open discussion of matters politique. The "tribe" sat around its council fire while deciding what wars should be fought and when peace should be made. Socrates, "whom well inspir'd the oracle pronounc'd wisest of men," walked among the market places, the streets, the public resorts, luring into conversation all who would listen to his queries. Around him gathered the young men of Athens whose opinions later carried great weight in the affairs of Greece and Rome. The Forum at Rome was the political centre of that ancient glorious civilization. In our own country there has been always the meeting house for each community, a town hall where its citizens have met to talk over their common interests.

New York City has not had a real town hall free from political control until now; but this one "aims to be the centre of New York's community life." Situated as it is in the heart of Manhattan, it will be easily accessible to all transportation systems in the city. It was founded by The League for Political Education, which now holds it in trust for the citizens.

By means of civic education it is hoped to protect the welfare of the community. All beloved American institutions shall be defended, and the Town Hall, devoted to their perpetuation, will make it possible for New York to take its proper place in a national movement for better government by discussion. As Abraham Lincoln once said, "He who moulds public sentiment goes deeper than he who enacts statutes or pronounces decisions."

The Architects, McKim, Mead & White, are responsible for a very beautiful building, lovely in its semi-classic design, its graceful lines and simplicity. In the center of the facade which is of red brick, there is a large panel bearing the inscription:

> The Town Hall
> Founded by
> The League for Political
> Education
> 1894-1920
> "Ye Shall Know the Truth and
> The Truth Shall Make
> You Free."

The foyer of the Auditorium is "a memorial to public-spirited citizens not now living who were leaders of their day in public usefulness." The hall itself is filled with an atmosphere of dignity quite befitting its character. There is a wonderful harmony of line and color. From any one of its fifteen hundred comfortable seats the view of the platform is unobstructed. Across the front of the one balcony there is a row of loges. The platform

is widely arched and on the back wall hangs a beautiful tapestry of which the hall may well be proud.

The lighting also has been very carefully carried out. There is no glare, but with an indirect system there is a softness in the light which is very restful to the eyes. In all, there are 2500 lights required in the scheme of illumination. The power to operate the fans and blowers of the ventilating system is included in

Photograph by The New York Edison Company

The Town Hall Was Designed by McKim, Mead & White, Architects, and Erected by Russell B Smith, Engineers. An Electrical Equipment of 2500 Lights and 250 Horsepower in Motors Is Supplied by The New York Edison Company

the 250 horsepower that Central Station Service supplies for use in the building.

Although the structure is not yet complete the hall was opened in January during a week of ceremonies. Lectures were held every morning at eleven o'clock and receptions every afternoon from three until six. Again, in the evening, there were meetings at eight-thirty o'clock.

© CSS

Decorations, Charming in Their Simplicity, Are Combined With an Artistic Lighting Installation and Comfortable Seating Arrangements

This is characteristic of its activity at the present time. The hall is in use seven days a week. The League for Political Education, the Economic Club, and The Civic Forum are housed there. These three organizations, while independent of each other, are in reality different branches of the same field.

On the fifth floor, above the Auditorium, a political science library is to be installed. On the sixth floor and roof of the building there will be rooms for The Town Hall Club, a social organization of men and women on equal terms and in substantially equal numbers, aiming to promote a finer public spirit and a better social order. Large and small dining rooms, and assembly rooms for club use will be located on this floor.

On the main floor there is a Bureau of Information and Friendly Service from which facts may be obtained concerning the various educational, religious, charitable, and social organizations in the city.

Now that the doors of opportunity are open to the public it is possible for New York's citizens and friends to take advantage of lectures by speakers well voiced in matters of world-wide interest. "Open discussions are conductive to mutual good will and fair play." In this civic auditorium public issues will be faced and all sides fairly considered. In such a way the better citizenship that is so earnestly desired may be sought and found.

District Offices of The New York Edison Company

Contract and Inspection Department

Broadway District

Temporary Office at 10 Irving Place, David T. Brown, Manager; Telephone, Canal 8600. Boundaries: The Broadway District includes the territory south of Christopher and Eighth Streets, west of the Bowery, and south of Catherine Street.

Norfolk Street District

Norfolk Street Office at 20 Norfolk Street, L P Bendall, Manager; Telephone, Orchard 4261. Boundaries: The Norfolk Street District includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catherine Street.

Irving Place District

Office at 10 Irving Place, S F Fahnestock, Manager; Telephone, Stuyvesant 5600, Extension 405. Boundaries: The Irving Place District includes the territory between and including Eighth Street and Twenty-eighth Street from the East to North Rivers.

Forty second Street District

Office at 124 West 42nd Street, W M Kerr, Manager; Telephone, Bryant 5262, Extension 98. Boundaries: The Forty-second Street District includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to the North Rivers.

Eighty sixth Street District

Office at 151 East 86th Street, H S McGrath, Manager; Telephone, Lenox 7780. Boundaries. The Eighty-sixth Street District includes the territory north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park West.

One Hundred and Twenty-fifth Street District

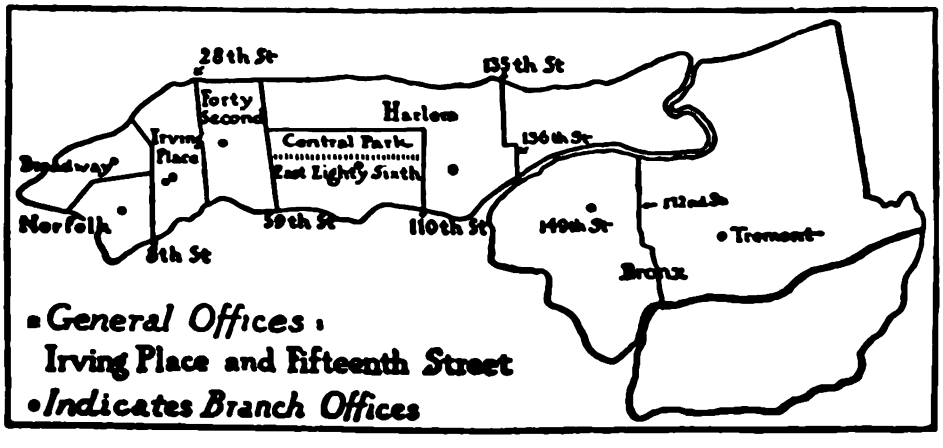
Office at 15 East 125th Street, William J Meara, Manager; Telephone, Harlem 4020. Boundaries: The One Hundred and Twenty-fifth Street District includes the territory bounded by the North River, Fifty-ninth Street, Central Park West, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St. Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St. Nicholas Avenue.

Bronx (One Hundred and Forty-ninth Street District)

Office at 362 East 149th Street, William A Ruenzler, Manager; Telephone, Melrose 9900. Boundaries: All territory lying between the Harlem and Bronx Rivers and between One Hundred and Thirty-second Street and East One Hundred and Seventy-second Street. The dividing number between the One Hundred and Forty-ninth Street Office and the Tremont Avenue Office, on all avenues with the exception of Third and Park Avenues, is 1499. On Third and Park Avenues, however, the dividing number is 3799.

Bronx (Tremont District)

Office at Tremont and Monterey Avenues, Albert Goldman, Assistant General Commercial Manager, Bronx District; Telephone Tremont 6900, Extension 225; Richard Goff, Manager, Tremont Avenue Office; Telephone, Tremont 6900, Extension 100. Boundaries: The territory covered by the Tremont Office extends from approximately One Hundred and Seventy-second Street, north to Yonkers City line; all territory lying between the Harlem River and Two Hundred and Twenty-fifth Street, and the Hudson River from Two Hundred and Twenty-fifth Street to Yonkers on the West, and the Bronx River on the East, including Woodlawn, Spuyten Duyvil, Riverdale and Mount Saint Vincent Districts.



TECHNOLOGY DIVISION

The EDISON Monthly

JUNE 1921

THE NEW YORK EDISON COMPANY
Irving Place & 15th Street, N.Y.

The Electrical Directory
and the Edison Show-rooms

THE very great increase in the number of names listed, and consequently the broadened scope and added importance of The Electrical Directory make it necessary to issue it as a separate publication rather than as a department of THE EDISON MONTHLY. The Directory in its new form will be distributed partly by mail and partly through the offices of The New York Edison Company. It will be sent without charge to anyone upon request.

The Electrical Directory is published for the purpose of rendering the greatest possible assistance to those desiring to use Edison Service for any purpose. Its lists include the names of dealers in every form of electric appliance, manufacturers or their agents, and contractors who do electrical work in the territory served by this Company. So far as is possible, the accuracy of each name and address is carefully verified.

Another object of the Directory is to give to every manufacturer, agent, dealer, and contractor an equal chance with those desiring to purchase devices or to have equipment made.

The Company desires to encourage the establishment of the largest possible number of dealers in electrical devices, appliances, and incandescent lamps, and of independent electric contractors who do satisfactory work at fair prices. It is believed that this policy is in keeping with the public interest, and is aided through a directory of this nature.

Each manufacturer or agent has equal right to free space, electric current and demonstration in the various show-rooms of the Company, and equal endorsement by the Company's representatives when talking with prospective purchasers. The Company's representatives are forbidden to recommend any particular device as compared with another, and final choice in the purchase must rest with the purchaser.

It might be added that the Company itself makes no sales (other than of incandescent lamps), nor does it install any kind of electrical equipment upon the customer's premises, other than directly identified with its service and meter. Appliances are shown and demonstrated, and an order from the purchaser will be received and transmitted to the manufacturer or agent of the appliance selected, without commission or charge of any kind for this service.

The New York Edison Company

June 1921

Wall and Water Streets, 1774

VOLUME 13

CONTENTS

NUMBER 6

The Edison Monthly

	Page
The Electrical Directory	Inside Front Cover
Editorial	86-87
Night Comes to Her City (Verse)	88
Electric Heat	90
Trucks and Trunks	93
Ship Ahoy!	96
The 71st Regiment Armory (Photograph)	99
Signs of the Times	100
Ventilation	102
Edison District Offices with Map	Inside Back Cover

Copyright 1921, by The New York Edison Company

The Edison Monthly
Published by
The New York Edison Company
General Offices
Irving Place and Fifteenth Street
New York City

N F BRADY, President
WALTER NEUMULLER, Secretary
FREDERICK SMITH, Treasurer

Ask your country cousin, the next time he comes to town, to hazard a guess at the cost of operating the big signs on Broadway. The chances are that, carried away by the brilliancy and glitter, he will name a sum in four figures.

Contrary to popular belief, the operation of an electric sign is not the bankrupting procedure that its multi-colored lights would seem to indicate. In fact the lights, which are the most spectacular feature of the sign, are really the least expensive.

Despite all the illumination an electric sign gives, it represents a very small current consumption for it is made up of lamps of the smallest size. The lamp in general use for home lighting is rated at fifty watts; those used in signs are the ten-watt size and occasionally are as small as five or even two and one half watts. Thus a sign made up of 10,000 lamps would cost only about $7 an hour for current. For the signs now so frequently seen over store doors, the cost is a matter of cents and their fractions.

In the large signs, the actual cost of operation is much less than a computation of the rated capacity of the lamps would indicate, for in producing the flashing and moving effects many of the lamps are off more than half the time.

Impressed by the brilliancy and glitter of the hundreds of incandescent lamps, visitors to the recent Electric Sign Exhibit asked about the quantity of current consumed and the operating cost. They seemed disappointed when they learned how small it actually was. Interest in the signs was also indicated in a more material way, manufacturers reporting many actual sales and great numbers of prospects.

If an increased use of electrical advertising is an indication of improving business conditions, there would seem to be little cause for concern in the immediate future.

Comment has been made from time to time in these columns on the long years of service which electric trucks give their owners. Tables showing the ages of electric trucks still in service in New York City have been published and the records of some of the installations have been given.

The fleet of the Westcott Express Company is a typical example of electric truck endurance. Eight years ago the express company replaced a number of horse-drawn trucks with a fleet of electric and gasoline vehicles. Today, after eight years of service, the electrics are still operating while all of the original gasoline cars have been retired as unfit for further use. Other gasoline cars have been added from time to time and the fleet is still made up of both types of motors. Recently a test was made by the company to determine which was the more economical in actual operation. The figures, as given elsewhere in this issue, show that the electric costs just about half as much and that it can

perform the same amount of work. During the month, the gasoline truck worked 295 hours, carried 3296 pieces of baggage and cost $226.57. During the same period, the electric worked three hundred hours, carried 3294 pieces of baggage and cost $107.88.

In considering these figures, it should be borne in mind that both trucks operated over routes of the same general character—city routes with many stops where the work is particularly suited for the electric truck. Thus the gasoline car with its greater speed capacity and its greater mileage possibilities had to adapt itself to the speed of the city traffic. In other words the gasoline truck had a margin in speed and mileage which it was never called upon to use, and it was the cost of this extra and useless capacity which, very largely, represented the difference in operating cost of the two types of vehicles.

Electricity's greatest progress in recent years has been, without question, in the development of apparatus for heating purposes. It is true that the electric iron, the various domestic cooking appliances, and the radiators were a commercial success years ago, but it is only recently that the many industrial uses of electric heat have come into general use.

The advantages of heat in this form are too apparent to need enumeration here. They are treated at greater length in the article Industrial Heat and will be made the subject of a special demonstration at the Irving Place Showroom of The New York Edison Company, during the week of June 6th.

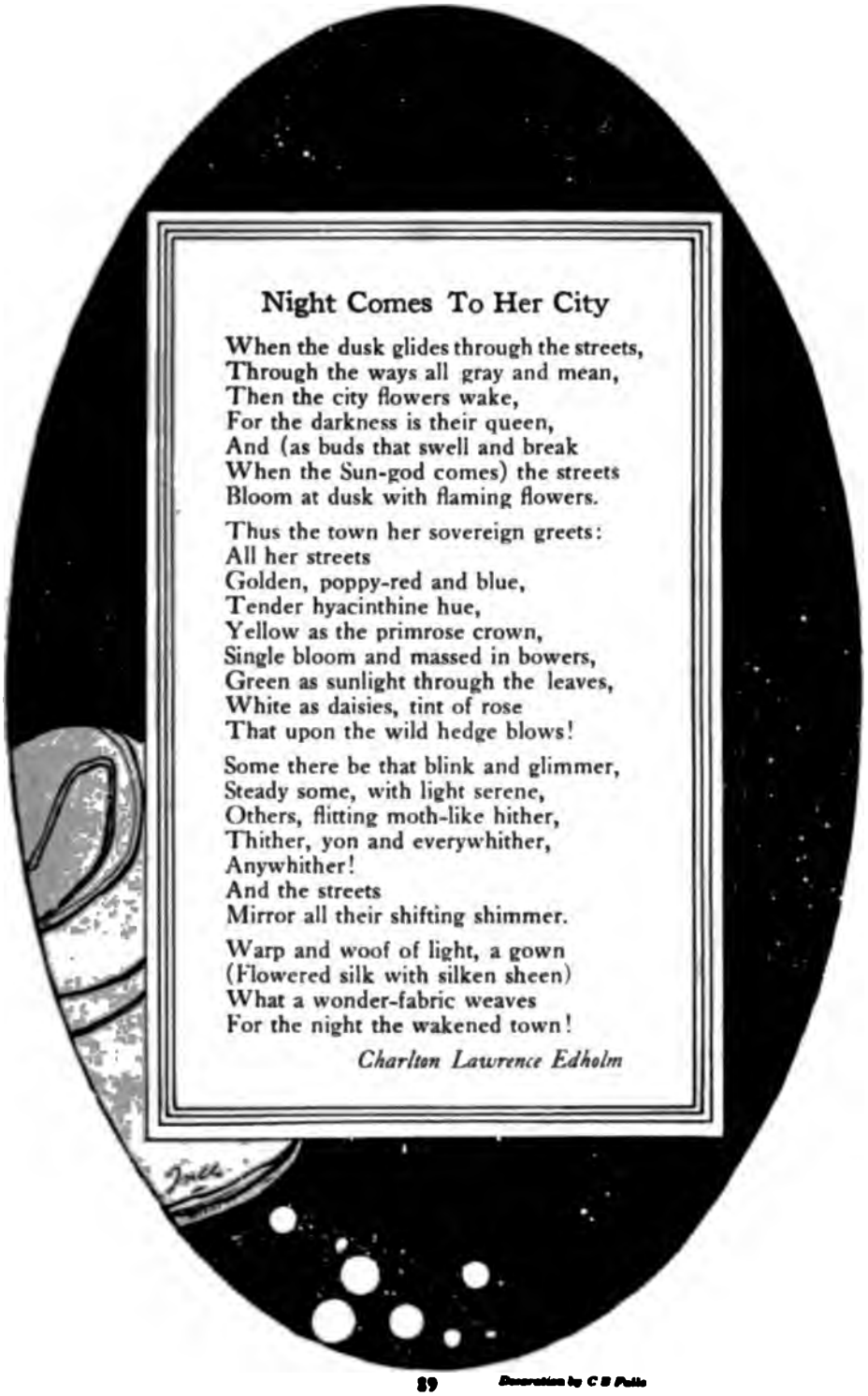
The Electric Heat Show will be followed by a demonstration of electrically operated ventilating apparatus. The Ventilation Show will be given during the week of June 20th.

In these two shows, electricity in two of its important industrial functions will be seen. In the first, current will be shown in the actual production of manufactured goods and in the second it will be seen in the equally important duty of making possible the working conditions that are essential in every well managed factory.

A remarkable demonstration of the capacity of electrically operated pumps was given recently when the huge passenger steamship *America* was raised on the floating dry dock of the Morse Dry Dock and Repair Company in Brooklyn. It took just thirty-two minutes of pumping to raise the 25000-ton ship high above the water. As related in the February EDISON MONTHLY other ships have been raised in faster time, but never one so large. In fact this operation establishes an American record for work of this kind.

The *America*, formerly the Hamburg American liner *Amerika* and more recently in the army transport service, is being reconditioned for the United States Mail Steamship Company. The work on her hull included the removal of the Burney Gear used during the war to trap mines, repairs to her shafting, propellers, and rudder, and, of course, cleaning and painting.

In all of this work, as in the operation of the big pumps, electricity played an exceedingly important part.



Night Comes To Her City

When the dusk glides through the streets,
Through the ways all gray and mean,
Then the city flowers wake,
For the darkness is their queen,
And (as buds that swell and break
When the Sun-god comes) the streets
Bloom at dusk with flaming flowers.

Thus the town her sovereign greets:
All her streets
Golden, poppy-red and blue,
Tender hyacinthine hue,
Yellow as the primrose crown,
Single bloom and massed in bowers,
Green as sunlight through the leaves,
White as daisies, tint of rose
That upon the wild hedge blows!

Some there be that blink and glimmer,
Steady some, with light serene,
Others, flitting moth-like hither,
Thither, yon and everywhither,
Anywhither!
And the streets
Mirror all their shifting shimmer.

Warp and woof of light, a gown
(Flowered silk with silken sheen)
What a wonder-fabric weaves
For the night the wakened town!

Charlton Lawrence Edholm

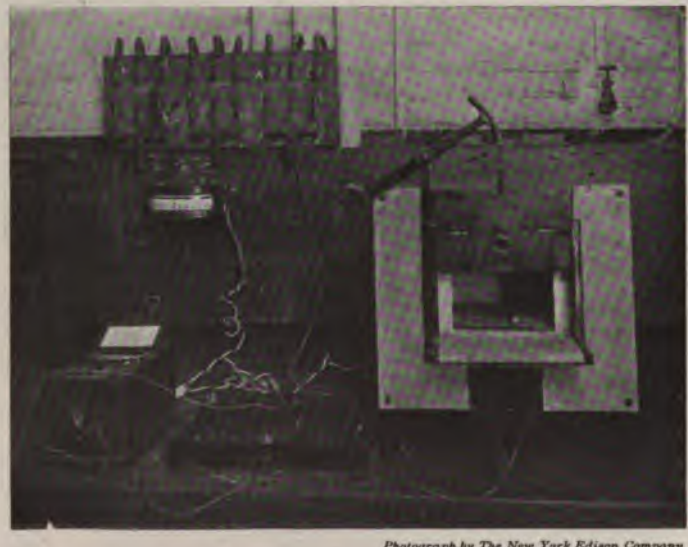
Decoration by C B Falls

Electric Heat

JUST as electricity has come to be accepted as the ideal source of artificial light, so is it rapidly approaching the same public acknowledgement in the heating field. The electric iron, the percolator, and the grill, have become so generally accepted almost as necessities in the home that it is their absence, rather than their presence, that is apt to invite comment. In industry, likewise, electric heat has established a place for itself, for its advantages are so many that there is now scarcely a process to which it has not been applied. These advantages, generally summed up, are concentration of heat where desired, ease of control, efficiency of operation, steadiness of temperature, safety for the handling of inflammable material, and improved working conditions.

Many process machines such as those used in the shoe, cigarette, and box-making industries have one or more parts which must be heated in order that uniform quality and maximum production may be obtained. Various agencies have been used for this purpose. For the most part they have proved unsatisfactory, requiring much attention in order to produce a uniform heat at a desired temperature. Electricity, however, through the medium of different types of electric heating units, concentrates the heat where desired, maintains a steady temperature and requires no supervision. Steadiness and uniformity of temperature are two of the most valuable characteristics of electric heating.

Electric glue pots may be regulated so that the glue will maintain an even temperature, therefore requiring no attention since it cannot burn nor become too hot. Some of these pots are made with an automatic control so that as soon as the electric current is turned on the full efficiency of the heating unit is secured. When the desired temperature is reached it is automatically retained by the action of the control. At the end



Photograph by The New York Edison Company

There is No Variation of Temperature in an Electric Annealing Furnace, and Ease of Control is One of Its Chief Characteristics

An Electric Dipping Table is Clean and Compact. The Temperature of the Chocolate Does Not Vary

of the day, should a workman thoughtlessly neglect to turn off the current, the glue will not be injured in any manner, since the temperature will remain fixed. Since glue which has been damaged by excessive heat loses its sticking qualities, resulting in poor work and unsatisfactory products, the value of such a pot may readily be appreciated.

The use of electric heat eliminates the fire hazard. Therefore it may be used in manufacturing processes which involve the heating of oils, parafine, and inflammable liquids where open flame is more or less dangerous. Heaters for this type of work can be made in special shapes to conform to special requirements.

The shoe industry has also made use of electric heat to particular advantage. Electrically heated machinery and other apparatus, including lasting room turners and treeing irons, have been developed for this trade. Indeed, irons for use in almost any industry have been manufactured so that there are now electric soldering irons, branding irons, and can-capping tools all of which possess advantages, due to being heated electrically, which can not be found in other types of tools and irons.

In the candy industry electrically heated apparatus has become almost universally recognized. In retaining chocolate in the proper condition for dipping it is important that the temperature be kept at just the right degree. The electrically heated chocolate warmer and bon-bon dipper has

Photograph by The New York Edison Company

Many Electric Heating Devices Are Made for the Shoe Industry. They Are All Labor Savers and Materially Assist in Keeping Down Overhead Expense

the advantage of perfect uniformity of heat and immaculate cleanliness as well. Coating pans used in connection with the chocolate warmers have the same advantages and will result in better and faster work than that accomplished with the use of the old type stone slab and cold surface.

Electric baking ovens produce superior products since they maintain an even temperature throughout and therefore eliminate the time and labor lost in shifting the baking because of "hot spots." Perhaps still more important is the fact that an electric oven requires less space than other types and is cleaner since the heating elements produce no smoke or fumes of any sort and does not throw off heat into the room. Many restaurants have installed electric bake ovens which are used for pastry, and rolls. They have proved highly successful. There is scarcely a large hotel or restaurant in the city which is not using electric heat in connection with some form or other of its cooking.

Besides the standard means of applying electric heat, many special applications have been made involving but a very small financial outlay compared with the many advantages gained. For example a special apparatus was recently made up for a New York book binding concern consisting of two brass bars mounted on a suitable frame. These bars are heated electrically and have a three degree regulation. When covers for books come from the presses they are perfectly flat, and in order that they may be made to conform to the backs of books they are run over these bars two or three times. Other types of

Photograph by The New York Edison Company

There are no "Hot Spots" in an Electric Oven—the Baking Does Not Have to be Shifted from Place to Place. Automatic Control Keeps the Temperature Just Right

apparatus of this sort are constantly being developed as special industrial conditions present their problems. Furnaces for melting and annealing metals have been in very successful use for a number of years and possess all the advantages necessary for accomplishing this work, in a satisfactory manner. Units especially designed for baking automobile bodies have so well established themselves it has been fore-told that in a few years they will be used by all automobile manufacturers.

Since for the operation of all of these tools, ovens, and machines, a uniform and steady supply of current is necessary, electricity as supplied through the mains of The New York Edison Company has been found to be the most efficient, economical and reliable. Past performances are the strongest recommendation for the use of this source of power wherever an even and assured supply of electricity is required.

Trucks and Trunks

WHEN, after eight years of motor vehicle operation, the Westcott Express Company found that, of a fleet of electric and gasoline trucks installed in New York in 1912, all of the gasoline vehicles had been worn out and cast aside, while every one of the electrics was still giving a full days work, it was decided to look further into the transportation department to see how the two types of trucks compared in other respects. This inquiry showed that not only do electrics outlive other types of trucks, but that they accomplish just as much work and that they are far more economical to operate.

Baggage transferring of all kinds is done by the Westcott Express Company and because the measure of the company's success is in direct ratio to the efficiency and economy of its vehicular equipment a resumé of the transportation experiences of the organization should prove enlightening and instructive to all those whose business demands the use of motor cars.

When horses were discarded as unsuitable, costly and unable to meet working requirements their places were taken in 1912 by an equal number of gasoline and electric trucks. Today all of the gasoline cars have disappeared, and their parts have been sold as junk. On the other hand all of the electric vehicles are still running and are in such good condition that from five to eight years more service is confidently expected by the owners. The two types of equipment were, during the entire period of eight years, working side by side, carrying the same kinds of baggage and covering city routes of the same general character. In order to prevent the drivers of the gasoline trucks from ruining the vehicles by over-speeding, governors were attached, regulated to thirteen miles an hour. Despite this unusual care their electric brothers-in-service have far outclassed them. No attempt was made to operate the electric trucks beyond their batteries' capacity, for the work done was within the forty-five mile limit which approximates the proper field of electric vehicles.

Viewing these facts the Westcott Express Company decided that the time had arrived for a sweeping investigation more stringent than any yet attempted. Under the direction of Mr C G Lambert, general manager of the company,

Photograph by The New York Edison Company

A Full Load—One of the Westcott Electrics Starting Its Day's Deliveries

the tests were carried out. A three-ton electric truck, which had already been in service eight and one half years, and a three-and-one-half-ton gasoline truck of six and one half years service were chosen. The gasoline motor in this instance was exceptional, as a maximum life of five years has been found by the Westcott Express Company to be all that can be expected of such cars.

At the end of the month's test, the records showed a saving of $118.69 in favor of the electric, a considerable saving in time lost for repairs, and many other items of interest as indicated in the accompanying tables.

In the record of the test, some significant facts may be observed. The item listed as "Time lost obtaining daily equipment" has reference to curtains, lamps and such removable equipment as is taken from the truck at night and reissued to the driver the next day. On the electric the lamps are permanent while on the gasoline car they must be put away for safety. This one item alone effected a saving of three hours and fifteen minutes and consequent saving of money during the month. Another point is that although the gasoline truck was rated at three and one half tons, as compared with the three-ton electric, it carried only two more pieces of baggage. An average of the results as obtained by the Westcott Express Company with all their trucks shows that, doing the same work, the gasoline car costs $208.40 a month while the electric vehicle costs but $102.30 for the same period. These figures are, of course, exclusive of depreciation and drivers' wages.

A typical example of the daily runs made by the vehicles of the Westcott Express Company in New York is that of the electric truck which leaves the main garage at Twenty-fourth Street and Eleventh Avenue and

Photograph by The New York Edison Company

Part of the Fleet of Electric Trucks Operated by the Westcott Express Company in New York City

Gasoline Truck 6½ Years Old		*Electric Truck 8½ Years Old*	
Number of working days (9 hours each)	28	Number of working days (9 hours each)	29
Overtime, 43 hours	4—7 hours	Amount of overtime—39 hours	4—3 hours
Total days service	32—7 hours	Total days service	33—3 hours
Number pieces baggage handled	3,296	Number pieces baggage handled	3,294
Garaging (estimated)	$25.00	Charging and garaging truck (outside garage)	$63.00
Gasoline cost	154.28	Allowance for Battery	33.00
Oil cost	6.75	Material used in repairs	2.01
Repairs outside garages	10.00	Labor	7.58
Material used	5.91	Time lost for repairs, 40 minutes—cost	.76
Labor	13.43	Time lost in garage obtaining equipment, etc., 1 hour 20 minutes—cost	1.53
Time lost account of breakdowns on street, 5 hours 10 minutes—cost	5.95		
Time lost in garage obtaining equipment lights, etc., and starting motor, 4 hours 35 minutes—cost	5.25		
Total cost	$226.57	Total cost	$107.88

Figures Showing the Difference in Operating Cost Between an Electric and a Gasoline Truck. Compiled After a Thirty-Day Test

goes along the river front picking up baggage on its way. It then crosses to Brooklyn and delivers its packages at the company's terminal at 21 Ormond Place, returning over the same route and unloading again at the Twenty-fourth Street building. This run is made three times daily by the electric truck, and the distance, forty-three miles, is accomplished on one charge of the battery. The total number of electric trucks now operated in the Metropolitan District by the Westcott Express Company is forty-one.

To each of the stations of the Westcott Express Company a certain number of electric trucks are detailed while other trucks, called "trippers" in garage vernacular because used for transfer work, are assigned to inter-station haulage. Mr Lambert, speaking of the facts disclosed by the records, says that the electric truck should be used wherever possible for it causes less congestion, less noise and confusion and 80% less accidents, besides being cheaper to operate and much more reliable.

The garages maintained by the Westcott Express Company are provided with all necessary equipment for the maintenance of trucks. A separate charging plug has been installed for each car and expert mechanics are in charge of battery repairs. Storerooms, workshops, engine shops, paint shops and body repair shops are complete to the most minute detail and can handle either gasoline or electric trucks with equal facility. Much of this effort toward better maintenance of trucks is under the guidance of Mr A A Heinzelman, superintendent, who, with Mr Lambert, has been largely responsible for the present excellent condition of the vehicles.

Ship Ahoy !

THREE good ships, the *Mandalay, N Y*, the *Mayflower, N Y*, and the *Irresistible, N Y*, have been in dock at 55th Street and Sixth Avenue since the launching of the *S S Flotilla* on April 21st. The *S S Flotilla*, which is composed of the three above mentioned ships, is a new and very unusual restaurant to which New York may well point with pride. It promises to be one of the favorite eating places in the city.

The building in which it is located has had a unique history. It was built in 1885 by the New York Athletic Club. Here the members met for exercise and to discuss the topics of the day. During the ensuing thirteen years they increased their number to such an extent that it was necessary for them to provide more adequate quarters, as have been realized in the present club house on Central Park South.

The Board of Health of New York City was the next occupant, but for about eight years after it had moved the premises stood vacant. Several months ago, however, work was begun which has made a complete transformation. The scheme to produce an exceptionally novel restaurant was originated by Special Deputy Police Commissioner Dr John A Harris, the owner of the property, and has been carried out in minute detail. Dr Harris desired to make his place distinctly individual. As Commodore of the Columbia Yacht Club it is evident that his hobby was the source from which he received his inspiration.

The nautical atmosphere begins at the very entrance of the *S S Flotilla* where lanterns are hung on either side of the doorway. A blue-bloused attendant adds his share of local color to the naval appearance of the restaurant as he ushers the guests to the gangplank leading to the pier where the ships are docked.

It is impossible to appreciate the completeness of the scheme at a

Photograph by The New York Edison Company

The Deck of the *Mandalay* is Gained by Crossing a Gangplank Leading From the Pier. Between the Pier and the Side of the Boat the Water of the Dock Laps and Splashes

glance. The main restaurant will accommodate five hundred persons, some of whom can be seated at tables on the deck of the *Mandalay*. This is gained by crossing the gang-plank leading from the pier. Between the pier and the side of the boat the water of the dock laps and splashes. One might pause here for a moment in wonderment at the stout hawsers encircling the mooring-posts. It would seem as though the boat were straining at them, anxious to be loosened and to glide away.

Photograph by The New York Edison Company

The *S S Flotilla*, at 55th Street and Sixth Avenue, is a Unique Restaurant, Nautical to the Last Minute Detail. Edison Service Supplies the Electric Current for Lighting and Power, and There Are 1100 Lamps in the Electric Sign

From the deck of the *Mandalay* the cabin of the *Mayflower* is reached. Passengers dining on this good ship may well be surprised at the realistic waves visible through the portholes. It is only an ingenious arrangement whereby a curtain of green silk is swayed gently by the breezes from concealed electric fans and lighted by hidden lamps, thus producing the effect of a moving sea.

Hanging at intervals, between the portholes on the walls of the cabin, electrically lighted lanterns lend themselves to the nautical atmosphere. At tea-time an individual lantern on each table acts in the capacity of a lamp.

On the opposite side of the pier lies the graceful yacht *Irresistible*. Her deck is lined with tables about which stewards hover in attentive readiness. Beyond the railing's edge stretches the blue of a pretty bay, flecked with white sails of sloops and cat-boats. In such surroundings it would not take many minutes to develop an imagination to the extent of being able to smell sea air. The captain's bridge, the ship's bell, the compasses, the searchlights, awnings suggestive of iced tea being served in their shade on a hot summer afternoon, life preservers, uniforms, and an orchestra—with all this as a background during luncheon, for a cosy chat over afternoon tea, for dinner, or a late supper, the guests find themselves transported from the noise and nervous tension of the city just beyond the four brick walls of the building and into a world of blue sky and water.

The *S S Flotilla* was incorporated with Lamar Washington as president and Theodor Szarvas as vice-president and general manager. It was under the personal direction of Mr Szarvas that the equipment for the kitchen and other features of the cuisine service were chosen and installed. The whole matter has been given careful consideration so that only the most scientific arrangement has been the result. In the basement the large kitchen is situated, light and well ventilated. Among the units that have been installed are two electric broilers and a large electric toaster. An electric dumb waiter connects with the special banquet kitchen on the second floor. The *Flotilla* has its own bakery and refrigerating and ice plant.

The electric equipment, which is supplied from Central Station Service, includes 1200 lamps and one hundred and fifty horse power in motors. This is distributed among the sixteen motors of between two and five horse power, the fifteen horse power elevator, and the several motors used in the ventilating and pumping system. There are 375 amperes for general lighting and 300 amperes for the lighting used in bringing about the scenic effects.

And so it is that the *S S Flotilla* has been floated as an exceptional rendezvous, for New York society, pleasingly delightful in artistic production and nautical to the last detail.

Don't be old-fashioned, go to it!
Keep up with the times, or you'll rue it!
Don't wash and don't sweep;
Or old sew-machine keep;
Let electricity do it!

—*Mary Newberry*

Photograph by The New York Edison Company

The 71st Regiment Armory, Park Avenue and Thirty-fourth Street, Where the New York Electrical Show is to be Held During the Ten Days Beginning September 28

Photograph by The New York Edison Company

So Great Was the Interest in Electrical Advertising Methods that the Recent Electric Sign Exhibit Had to Be Prolonged Three Days

Photograph by The New York Edison Company

Some of the Displays at the Electric Sign Exhibit Held at the Irving Place Showroom of The New York Edison Company in May

Ventilation

THE rapid growth of our industrial structure and the development of intensive methods of manufacture which accompanied it; a remarkable commercial expansion and the necessity for making use of every available inch of office space; traffic growth that meant the use of space below the streets as well as above; the increasing populations of our cities and the crowding together of families, have all combined to create one of the most pressing problems of recent years — that of providing an adequate supply of fresh air.

Illustrations by Courtesy Ilg Electric Ventilating Company

An Electric Blower Which Supplies Heated Air for an Office

Happily, the solution of these problems was not beyond the resources of our ventilating engineers. The problem of ventilation has been the subject of careful study by industrial commissions, housing and welfare bodies, efficiency experts and safety committees. Thanks to their efforts, much is known now not only about the effects of an improper supply of air and poor temperature control, but also of the proper methods of overcoming these harmful factors.

Ventilation after all is merely either the stirring up or replacing of the air in an enclosed space. You have it in its simplest form in the electric fan that keeps the air of your office in motion. In factories that require the removal of industrial dust, the introduction of fresh air, and the heating or moistening of air, you find the skill of the ventilation engineer at its best. Even in the office where the air is vitiated merely by the presence of the force of workers, ventilation calls for more than the simple opening of windows.

Although ventilation as we know it today with its scientifically exact duct systems, its methods of either humidifying or drying the air, and the exact control of temperature, is a comparatively new art its history goes back many centuries. A bunch of leaves in the paw of the first ape in a swaying palm tree was undoubtedly the forerunner of the fan and therefore the beginning of ventilation. At about the time the Pilgrims were beginning to cast anxious eyes toward the New World a European mechanic contrived a device which, by means of a ratchet release, a ponderous wheel, a coil of rope and a counter weight, caused a huge wooden paddle

to sway slowly to and fro. Needless to say, it did not gain wide popularity. Coming down to more recent times—a matter of a century or so ago—we find on the roof of Newgate Prison in London a large windmill connected with a system of ducts which reached the cell blocks of the jail. On windy days the wheel whirled and the inmates received a supply of fresh air—the more wind the more air. On warm, sultry days the wheel was undoubtedly overcome by the heat, while the prisoners, likewise suffocated, longed for a hurricane.

Exhausting Heat and Acid Fumes by Means of a Direct Connected Electric Blower

Pure air consists of about 20 percent oxygen, 78 percent nitrogen, .04 percent carbon dioxide and about 1.50 percent water vapor. Air breathed from the lungs consists of about 16 percent oxygen, 75 percent nitrogen, 4 percent carbon dioxide and 5 percent water vapor. With such a sharp increase in the poisonous carbon dioxide and the discomforting humidity it is readily apparent why a group of people in a close room will soon become uncomfortable, lethargic and then actually ill. Complicate the situation by carrying on a manufacturing process, in which the running of machines throws off heat and the grinding of material fills the air with dust and you have the beginning of occupational disease.

The average person inhales about twenty cubic inches of air each time he breathes; his respiration is at the rate of from sixteen to twenty-four times a minute; he exhales .6 cubic feet of carbon dioxide an hour. It is generally agreed that the number of parts of carbon dioxide in a room should never exceed ten for every 10,000 parts of air. Even eight parts would be regarded as close while for general considerations of ventilation the limit should be placed at six to seven parts. Thus, the importance of air change in an office where a number of persons are gathered is readily apparent. In fact it is only by ventilation that working conditions may be maintained. If such a room has windows and doors at opposite ends the problem is very simple. But if it is an inside room, or a vault it becomes necessary to install ventilating equipment. Safe deposit vaults are usually underground, and are built of steel and concrete. They are impregnable to robbers, and they are almost as hard of access for fresh

air. But no matter how long a time it takes you to clip your coupons you never become uncomfortable in a safe deposit vault. Modern mechanical methods keep you supplied at all times with plenty of fresh air.

From the installation of equipment for supplying fresh air and exhausting foul air it was a very simple and logical step to utilizing this same equipment for heating the buildings. Heating apparatus, installed near the inlets of a ventilating system, warms the air as it passes through. A still further elaboration provides for the installation of humidifiers for places where a certain percentage of moisture must be maintained. From the blowing of warm air in the winter to the cooling of the building in summer is another logical development and we find in many plants that a system of refrigerating coils is installed in the duct system. Thus the air from outside passes over the coils and is cooled before it reaches the workers.

The importance of adequate ventilation for a garage is readily apparent, and here we find exhaust fans of different types, fulfilling an important task in removing dangerous vapors and gases.

So great has been the progress in the science of ventilation that temperature may be controlled within a range of very few degrees in either winter or summer, and a standard percentage of humidity may be maintained at all times. Industrial managers would no more think of planning a factory, without due provision for the ventilating equipment than they would think of erecting a building without lights and plumbing.

The Duct System which Supplies Air to the Workers in a Steel Mill

District Offices of The New York Edison Company

Contract and Inspection Department

Broadway District

Temporary Office at 10 Irving Place, David T Brown, Manager; Telephone, Canal 8600. Boundaries: The Broadway District includes the territory south of Christopher and Eighth Streets, west of the Bowery, and south of Catherine Street.

Norfolk Street District

Norfolk Street Office at 20 Norfolk Street, L P Bendall, Manager; Telephone, Orchard 4261. Boundaries: The Norfolk Street District includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catherine Street.

Irving Place District

Office at 10 Irving Place, S F Fahnestock, Manager; Telephone, Stuyvesant 5600, Extension 405. Boundaries: The Irving Place District includes the territory between and including Eighth Street and Twenty-eighth Street from the East to North Rivers.

Forty second Street District

Office at 124 West 42nd Street, W M Kerr, Manager; Telephone, Bryant 5262, Extension 98. Boundaries: The Forty-second Street District includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to the North Rivers.

Eighty-sixth Street District

Office at 151 East 86th Street, H S McGrath, Manager; Telephone, Lenox 7780. Boundaries: The Eighty-sixth Street District includes the territory north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park West.

One Hundred and Twenty-fifth Street District

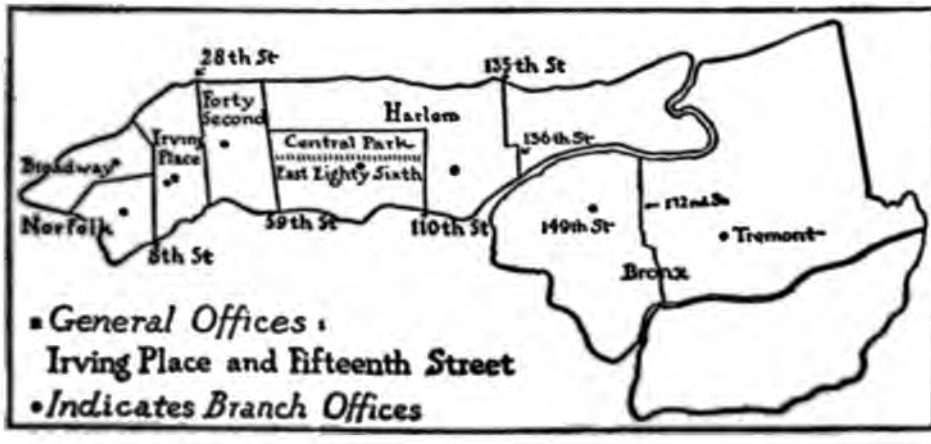
Office at 15 East 125th Street, William J Meara, Manager; Telephone, Harlem 4020. Boundaries: The One Hundred and Twenty-fifth Street District includes the territory bounded by the North River, Fifty-ninth Street, Central Park West, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St. Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St. Nicholas Avenue.

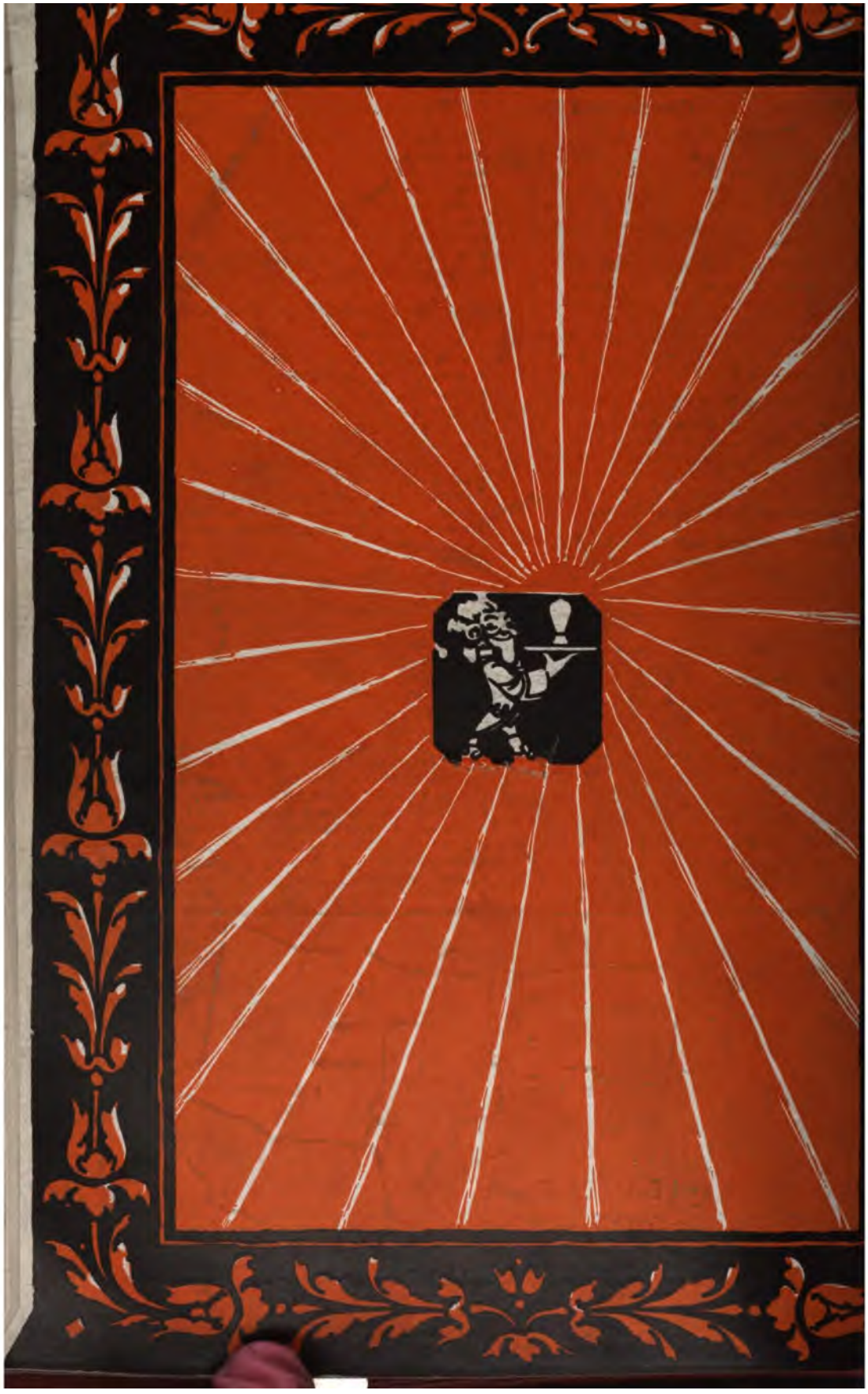
Bronx (One Hundred and Forty-ninth Street District)

Office at 362 East 149th Street, William A Ruenzler, Manager; Telephone, Melrose 9900. Boundaries: All territory lying between the Harlem and Bronx Rivers and between One Hundred and Thirty-second Street and East One Hundred and Seventy-second Street. The dividing number between the One Hundred and Forty-ninth Street Office and the Tremont Avenue Office, on all avenues with the exception of Third and Park Avenues, is 1499. On Third and Park Avenues, however, the dividing number is 3799.

Bronx (Tremont District)

Office at Tremont and Monterey Avenues, Albert Goldman, Assistant General Commercial Manager, Bronx District; Telephone Tremont 6900, Extension 225; Richard Goff, Manager, Tremont Avenue Office; Telephone, Tremont 6900, Extension 100. Boundaries: The territory covered by the Tremont Office extends from approximately One Hundred and Seventy-second Street, north to Yonkers City line; all territory lying between the Harlem River and Two Hundred and Twenty-fifth Street, and the Hudson River from Two Hundred and Twenty-fifth Street to Yonkers on the West, and the Bronx River on the East, including Woodlawn, Spuyten Duyvil, Riverdale and Mount Saint Vincent Districts.





TECHNOLOGY DIVISION

The EDISON Monthly

JULY 1921

THE NEW YORK EDISON COMPANY
Irving Place & 15th Street, N.Y.

The Edison Directory
and the Edison Showrooms

THE very great increase in the number of names listed, and consequently the broadened scope and added importance of The Edison Directory make it necessary to issue it as a separate publication rather than as a department of THE EDISON MONTHLY. The Directory in its new form will be distributed partly by mail and partly through the offices of The New York Edison Company. It will be sent without charge to anyone upon request.

The Edison Directory is published for the purpose of rendering the greatest possible assistance to those desiring to use Edison Service for any purpose. Its lists include the names of dealers in every form of electric appliance, manufacturers or their agents, and contractors who do electrical work in the territory served by this Company. So far as is possible, the accuracy of each name and address is carefully verified.

Another object of the Directory is to give to every manufacturer, agent, dealer, and contractor an equal chance with those desiring to purchase devices or to have equipment made.

The Company desires to encourage the establishment of the largest possible number of dealers in electrical devices, appliances, and incandescent lamps, and of independent electric contractors who do satisfactory work at fair prices. It is believed that this policy is in keeping with the public interest, and is aided through a directory of this nature.

Each manufacturer or agent has equal right to free space, electric current and demonstration in the various showrooms of the Company, and equal endorsement by the Company's representatives when talking with prospective purchasers. The Company's representatives are forbidden to recommend any particular device as compared with another, and final choice in the purchase must rest with the purchaser.

It might be added that the Company itself makes no sales (other than of incandescent lamps), nor does it install any kind of electrical equipment upon the customer's premises, other than directly identified with its service and meter. Appliances are shown and demonstrated, and an order from the purchaser will be received and transmitted to the manufacturer or agent of the appliance selected, without commission or charge of any kind for this service.

The New York Edison Company

July 1921

New Amsterdam About 1650

VOLUME 13 NUMBER 7

CONTENTS

The Edison Monthly

	Page
The Edison Directory	Inside Front Cover
Editorial	106
London Nights	109
Electrically Bound	111
The Heating Show (Photographs)	114
Trucks in the Making	116
To An Electric Sign (Verse)	117
Potter Building	118
The Stars of Earth (Verse)	120
Tallow Dips and Distaffs	121
The Power (Verse)	124
Edison District Offices with Map	Inside Back Cover

Copyright 1921, by The New York Edison Company

The Edison Monthly
Published by
The New York Edison Company
General Offices
Irving Place and Fifteenth Street
New York City

N F Brady, President
Walter Neumuller, Secretary
Frederick Smith, Treasurer

A short time ago it was the privilege of The Edison Monthly to publish a brief description of a new electric vehicle factory in Philadelphia. In this issue is the story of the new plant of the Walker Motor Vehicle Company in Chicago.

In each case, the new factory represents very greatly increased facilities for the production of the storage battery vehicle. That such expansion is fully warranted is seen in the constantly growing demand for electrics in all of our large cities, a demand which is already beginning to tax the capacities of the two plants.

The extensive alterations completed recently in the well known Potter Building, 38 Park Row, are typical of the changes that are being made in similar buildings throughout the city. The fact that the Potter Building occupies a niche in the history of New York by reason of the fact that it is one of the first of the skyscrapers adds interest to the modernization of the structure.

The most important of the changes was the removal of the electric generating plant and the high pressure boilers and auxiliary equipment. Instead of the plant, the source of electrical supply is now the mains of the Edison System. Not only does Edison Service light the building, but it runs the pumps and operates the passenger and freight elevators. Formerly, hydraulic elevators served the tenants but the hydraulic equipment too was scrapped when the generating plant was removed.

Today, in elevator service and lighting equipment the Potter Building is as modern as its newest neighbor, a condition only possible, because of the general use of Central Station Service.

Transportation engineers are looking forward with great interest to the publishing of the findings of the committee which is investigating electric trucks for the Post Office Department. The Department recently authorized the expenditure of $50,000 to conduct an investigation which shall tell whether or not the electric truck is suitable for use of the Post Office in transporting the mails. The investigation will cover the present method of handling mail in New York and will pay particular attention to the relation between costs and results that has attended the use of gasoline cars.

To the genius of a few individuals —Volta, Ampere, Ohm, Watt, Faraday, Kelvin, Franklin, Edison—the world owes the beginning of the Electrical Era. Each carried on his own researches and alone made his contributions to a science which was still in the formative stages. Volta's great contribution to Electricity was the

electric battery; Ampere's principal researches were in the field of electro-dynamics; Ohm established the principles upon which are based all studies of electrical resistance. Edison's great contributions are the incandescent lamp and the present method of generation and distribution.

Strange to say, with all these great men working toward the same general goal very few labored contemporaneously. In fact both Volta and Ampere died before the birth of Edison and Ohm when Edison was only seven years old. Yet without their preliminary work Edison's efforts could hardly have been possible.

It was not until electric lighting had actually been established as a commercial reality that definite steps were taken to bring about close co-operation and unity of effort on the part of those interested in the science. Then, in 1885 a meeting of the leaders of the infant industry was held in Chicago, and the National Electric Light Association resulted. The association has just held its annual convention, marking thirty-six years of progress in the electrical industry.

In the National Electric Light Association is found the explanation of the great strides that electricity has taken in this country—strides that have placed the country far ahead of any other nation, for in no other nation do the leaders in electrical effort have the same opportunity to discuss their mutual difficulties and problems that is presented by the annual convention and the year round section and committee meetings of the National Electric Light Association.

Through the thirty-six years of achievement in things electrical, the association has led the way, for it is truly an association in which the accomplishments of one member are made available for all. Its membership is broadly representative—central stations, manufacturers, jobbers and contractor-dealers, making up its roster.

For these reasons the nation naturally looks to the Association for leadership in things electrical, and if we may judge the future by the accomplishments of the past there is every reason to feel confident that the coming years will witness just as much in the development of the electrical art as have the past decades.

The exhibit of electrically operated ventilating apparatus at the Edison Showroom in June, recalled an interesting and almost forgotten incident of the early uses of electricity.

When Edison Service was started in New York in 1882, electricity was used for lighting purposes only. The electric motor was known, of course, but no practical application had as yet been developed for its use. In 1884, however, some genius contrived to attach blades to the shaft of a motor, and thus the first electric fan came into being. Electric fans were used in a number of downtown offices that first summer, and the following year there was a greatly increased demand for them.

Not only did the art of ventilation make its start in this crude way, but a new use for electricity—the operation of motors for all purposes—was found.

Photographs by Van der Wyde

If Wordsworth Was So Charmed With What He Saw from Westminster Bridge in the Beginning of the Nineteenth Century, What Would Not the Poet Say if He Could Today Contemplate by Night, That Same View?

London Nights

WORDSWORTH, standing upon Westminster Bridge in London, in the days when mud-flats covered the river-bank now occupied by the Victoria Embankment, wrote ecstatically about the scene. "Earth has not anything to show more fair," he declared, as he contemplated the view spread before him. It was no doubt a beautiful vista of the Thames and the metropolis upon which the poet gazed and concerning which he wrote so rapturously.

If Wordsworth was so charmed with what he saw from Westminster Bridge in the beginning of the nineteenth century what would not the poet say if he could today contemplate by night that same view?

The river-bank is now aglow with incandescent lights, each lamp casting its scintillating reflection in the placid stream below. In the middle distance may be seen the sombre Hungerford railway bridge, and directly over it the brilliant lights of two hotels. The scene forms just such a composition as Whistler delighted to place upon canvas. It is indeed a nocturne in silver and black.

The Little Room at the Right is Pointed Out as "Little Nell's Room"

London by night is very beautiful and one need not wander far from Westminster Bridge to find other scenes which are especially attractive. Just across the bridge is the Albert Embankment, from which one may obtain a splendid view of the Houses of Parliament, which are ablaze with light when Parliament is in session. A long succession of shimmering

windows—the building is nearly 1000 feet long—cast brilliant reflections across the sombre Thames to the opposite bank. The clock-tower at the Westminster Bridge end contains the 13½-ton bell which is famous the world over as "Big Ben."

A short distance down the Victoria Embankment stands "Cleopatra's Needle," a twin to the Central Park obelisk. Two fine bronze figures of the Sphinx are appropriately placed at the sides.

Directly back of the Law Courts is little Portsmouth Street, which is perhaps best known as the street upon which stands "Old Curiosity Shop." The quaint little building was for many years used as a rag and old-paper warehouse, and latterly as a shop wherein curios and souvenirs of one sort and another are sold. On the front wall are painted the words "Old Curiosity Shop; Immortalized by Charles Dickens."

Whether or not the building is in very truth the house concerning which Dickens wrote his famous book is a difficult matter to prove. It has long been in dispute. The little bedroom upstairs, at the right hand side of the night photograph, is pointed out as "Little Nell's room," and it is quaintly furnished as no doubt Little Nell would have had it. It is a low-ceilinged cozy room such as Nell would have loved and it is pleasant to think that perhaps she really lived here.

The Houses of Parliament Are Ablaze With Light When the Lawmaking Body is in Session

London is revelling these days in the luxury of brilliant illumination after several years of war-time darkness. "Light, more light," the immortal words of Goethe, seems to be the slogan of the London of today.

Electrically Bound

THE present art of binding books, from the first step which is the folding of the pages, to the final step which involves the ornamentation of the cover, interests itself in the perfection of workmanship exhibited in the completed volume, and not alone, as was the case in the early days of the art, in the elaborate treatment of the bindings.

A trip through a modern electrical bindery, such as that of Robert Rutter and Son, Inc, confirms this statement. For here are found books being very carefully bound and with much attention to detail, but which when finished, to the casual observer, present no particularly striking appearance. But these books are sturdy and strong; when opened will remain open, lying flat, and they have a certain "feel" to them of solidity which cannot be produced if poor workmanship is tolerated.

In the twelfth century leather bindings were used to which were stitched, of course by hand, the pages of the book. In those early times covers of books were ornamented with designs in the taste of the epoch, changing century by century. The first designs were Romanesque or semi-Byzantine scrolls, the designs becoming more Gothic in the thirteenth century. These were followed by the devices of heraldry and religious emblems. The art of inlaying appeared in Italy about the sixteenth century. In the seventeenth century came coats of arms displayed in gold and occasionally in colors, though colors were more commonly used in the fifteenth and sixteenth centuries. Books of this period were very large and ponderous and naturally suggested, both for artistic and utilitarian reasons, elaborate bindings, including metal and heavy leather frequently inlaid with jewels.

While decoration is quite properly included in the history of book binding, it is not that part which is of the greatest interest and concern to us at this time. For while the decorative treatment of covers is an interesting study, the actual mechanical processes involved in binding a modern book are of far greater interest. For here is shown the great advance that has been made since the days when the leaves of a book were tied together by leather thongs or since the very early days when a book was not divided into pages at all, but was in the form of a scroll.

The Modern Bindery

Robert Rutter and Son, Inc, at 412 East 32nd Street, is one of the oldest book binding concerns in the city. The business was established seventy-two years ago, with an output of two hundred and fifty books a day. During this long period the concern has kept abreast of the times and as new types of the machinery were put on the market, they adopted them, with the result that the equipment now used by this concern represents the latest and the best. Electricity as a source of power, heat and light is used exclusively. Current for the entire installation is supplied by Central Station Service.

The pages of a book to be bound arrive at the binder's in large sheets direct from the printer. These, of

course, have to be folded. This task used to be done by hand, but is now accomplished by a machine which does the work much more rapidly. When the sheets have been folded they are placed in a machine which packs them into bundles convenient for handling and at the same time presses out the air between the loose pages. The first page of each sheet of a printed book is usually marked with a letter or number known as the "signature," after which the sheets are arranged in their proper order for sewing.

Robert Rutter & Son, Inc, use eight sewing machines, which are built to turn out about five thousand books a day. After having been sewn, the books are placed in a smashing machine which packs them down into compact form. It takes approximately two or three seconds to press eight or ten books. Almost all of the machines in this establishment have their own individual motors, and where such is not the case arrangements are being made to have direct drive installed.

Glue for pasting on fly leaves for the back and front of the books is heated in electric glue pots, automatically controlled, so that the current is turned on a little while before the men arrive for work in the mornings. Mr Chequer, manager of the plant, said: "Forty or fifty men handle these pots. Some of them are careless. Should they forget to turn the current off and leave it on all night the glue might be spoiled if it were not for the automatic clock control which shuts off the current at closing time in the afternoon and turns it on again in the morning. The current for all of our machinery is automatically cut off at closing time."

Photograph by The New York Edison Company

Electric Bookbinding Machinery Reduces Overhead Expense. It Produces Better Work and is Reliable and Efficient

After the book has been stitched and the fly leaves pasted, it is placed in a machine which trims the edges, after which a rounder and backer machine makes a concave curve in

Photograph by The New York Edison Company

Stitching Machines Which Perform in a Few Minutes Work That Formerly Took Hours

the front edge of the volume and a convex curve at the rear, at the same time making two grooves into which are hinged the covers.

Cardboard of a quality known as cover board is fed through a cutter which trims it into the size desired. Cloth with which the board is to be covered is cut in a cloth-cutting machine. Then the cloth and board are very carefully pasted together. An electrically heated machine embosses whatever is to be shown on the cover and this afterwards may be covered with gold leaf or left plain. If the cover of the book is not to be embossed it may be put in the "inker" which operates practically on the same principle as a printing press and prints the desired lettering in colors. The cover and the book are now combined and pressed.

Robert Rutter and Son, Inc, are equipped to do the most elaborate binding as well as the most inexpensive and include in their mechanical equipment a number of electrically operated machines which are brought into play to accomplish special work.

The advantages of Central Station Service as a source of electrical supply for the operation of a plant of this sort need hardly be enlarged upon. Besides the fact that many of the machines do delicate work, requiring a very even supply of current, the very nature of the work itself requires that the source of electrical supply be absolutely reliable, else, should the current be suddenly discontinued, hundreds if not thousands of books in the course of binding might be hopelessly destroyed. It is due to its reliability, efficiency, and economy in operation that Central Station Service has been adopted for almost every kind of manufacturing processes in which machinery is used today.

Photograph by The New York Edison Company

An Electrically Heated Appliance for Shaping Book Covers

Photographs by The New York Edison Comp

Views of the Exhibits at the Electric Heat Show, Held in the Irving Place Showroom of The New York Edi Company During the Week Beginning June 6. Hundreds of Visitors Attended the Show Each Day

Photographs by The New York Edison Company

The Exhibits Included Various Types of Cooking Equipment for the Home, a Wide Range of Commercial Cooking Apparatus, and Many Industrial Appliances

Trucks in the Making

ANOTHER measure of the increasing importance of the electric vehicle, so tellingly brought out by the 500% increase sold in New York City last year as compared with the year preceding, is the expansion of truck manufacturing facilities as seen in the Walker Vehicle Company's plant at Chicago.

This company, known as the oldest electric truck manufacturing concern in the field, recently purchased a site of twenty acres at State and 87th Streets on the Belt Railroad and has built a new and very complete plant which is now operating full time. These facilities are in addition to the 39th Street Plant.

The first section of the new factory contains two and one half acres of floor space, which is as much as the total of the old factory. With the modernizing of manufacturing methods which it affords, it will enable the company to turn out several thousand complete trucks each year as against a few hundred in the past. Future additions ultimately will utilize all of the twenty acre tract.

The plant is devoted exclusively to the manufacture of electric street trucks. The best known practices as to the use of alloyed steels, heat treatment and machining are followed throughout. All the units entering into the truck are manufactured by, or exclusively for, the Walker Vehicle Company and are in design, material, and workmanship equal to those of any motor vehicle made anywhere. The high grade of materials used and the exactness of the machining of all parts, together with the simplicity of the vehicle, the efficiency of its balanced drive, and the "adaptable" chassis, have established for the Walker the enviable record of ten to twenty years profitable working life. Walker trucks are not assembled until the customer's order is received. With the order come definite data regarding the uses to which the truck is to be put, so that the engineering department can vary not only the length

General Offices, and Factory Unit Number One of the New Plant of the Walker Vehicle Company

ck of the seat or dy space, but so the wheel se, to suit the b. This adjustent of the chassis akes possible the roper distribution f the load between the front and rear axles. If one considers the extremes in the nature of commodities hauled, from lead ingots to theatrical scenery, one can easily picture the advantages which the user derives by having his truck built to meet particular requirements.

Walker Trucks Are Not Assembled Until the Customer's Order and Specifications Are Received

Since the longer life of the electric truck has been conclusively demonstrated, it is of correspondingly greater importance that the truck be designed to fit its job.

In watching the assembling of the Walker one is again struck with the fundamental simplicity of the electric. It is evident from the small number of elements, that the vehicle must be easy and economical in up-keep. The chassis, the battery box and the electric motor rotating dust-tight within the rear axle, are as simple as the self-starter alone in a gasoline car. By means of eleven moving parts, all rotating dust-tight in oil, the Walker moves loads varying from 1000 to 10000 pounds.

The Walker Company maintains New York sales offices in the Grand Central Terminal Building, with service and parts stores for both General Vehicle and Walker Electric Trucks at Jackson Avenue and Sixth Street, Long Island City, near the Long Island end of the 59th Street Bridge.

It is commonly accepted among those who have studied trucking problems, that because of short hauls, many stops, and congested traffic, 75 per cent of city trucking is electric truck work. The expansion of the Walker Company indicates their full recognition of this fact and its implications.

The Walker Company enjoys the distinction of being among the oldest dozen automobile manufacturing companies in America, as well as the oldest electric truck manufacturer. Hundreds of companies have come and gone in the field since the Walker Company began business in 1903.

To an Electric Sign

Twinkle, twinkle, 'lectric star,
No one wonders what you are:
You're the brightest, smartest plan,
Of the advertising man.

—Daphne Greene

Photograph by The New York Edison Company

The Potter Building, 38 Park Row, Which Has Been Extensively Altered. Central Station Service to Take the Place of a Private Generating Plant and Electric Elevators for Hydraulic Are Among the Changes

Potter Building

BECAUSE of the romance which naturally clusters around the Potter Building, Park Row, Nassau Street, and Beekman Street—as one of the first of the downtown skyscrapers, there is special interest in the well planned changes that have been carried out in modernizing the structure.

The Potter Building is unique in many ways among the great buildings of New York. In solidity, high ceilings, width and depth and strength of walls, all of which have a direct bearing on ventilation, natural lighting, and many other features of importance to a well equipped office building, this pioneer skyscraper stands as a monument to the enterprise and foresight of the Potter Estate which erected it.

Extensive Alterations

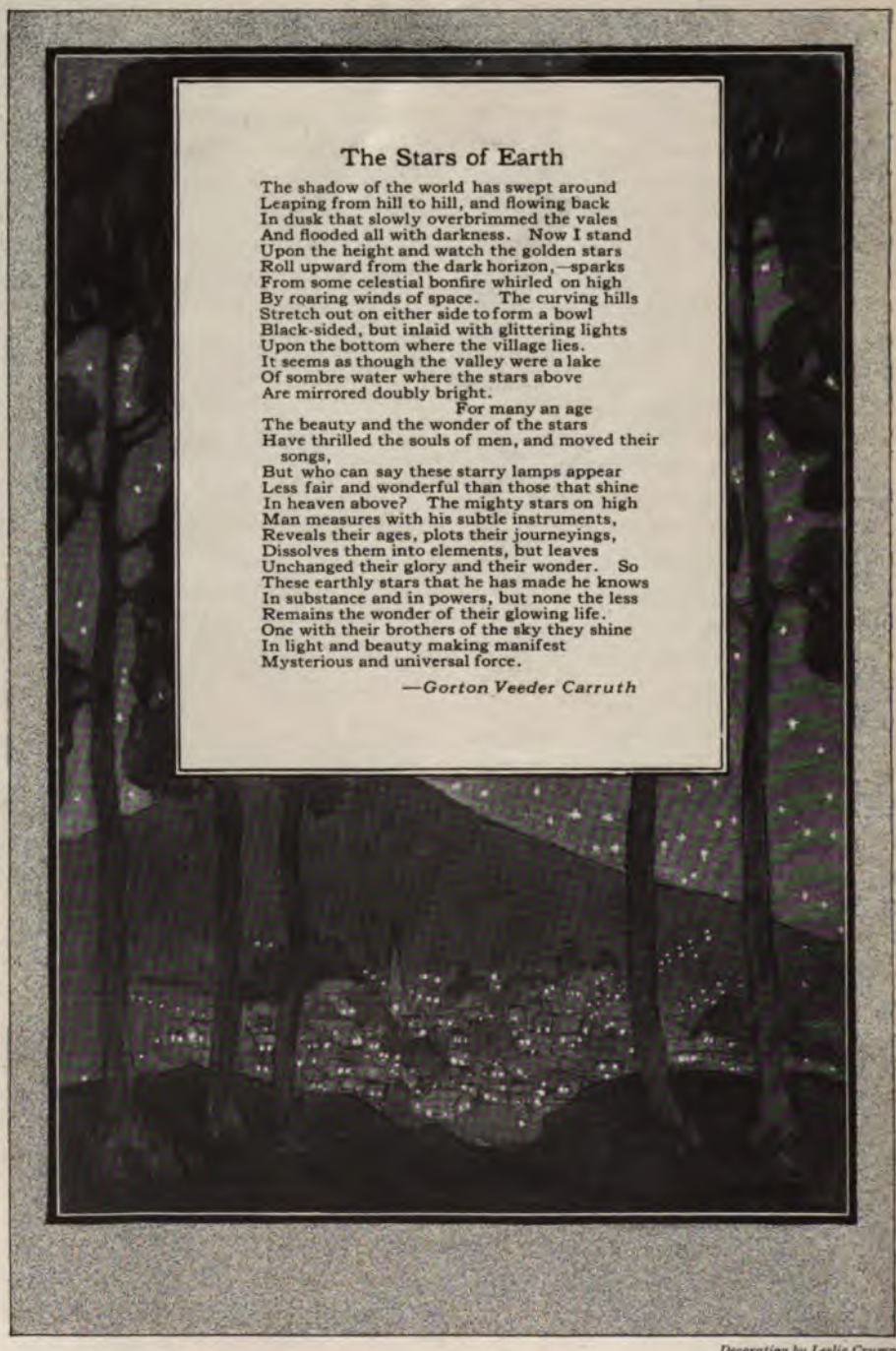
Today, although the Potter Building to all outward appearances looks very much as it did at the time it was built, it is entirely different inside. Among the many changes are the removal of the electric light plant and the installation of electric elevators making the building more satisfactory in every way for its tenants.

Like a machine, a building is judged by its performance—the actual service it renders. For a building, it should be emphasized, consists of more than four walls and a roof, and the way in which it meets these requirements is the measure of its full and complete service.

The importance of such service in buildings prompted the present management, Messrs Warren and Skillen, to make a careful inventory and appraisal of the old lighting service, supplied by the building itself, and this investigation developed the fact that there had been frequent interruptions, due to the shortcoming of the electric lighting plant. It was also shown that the elevator service needed modernizing and strengthening.

These conditions were given careful attention, with the result that the Peerless Engineering Company was called into conference to devise a way to put the building on as solid a basis mechanically as possible. The first move was to abolish the lighting plant and connect up with Edison Service. As part of this change, the high pressure steam plant, with its three generators, pumps and other equipment were moved. The engineering company then turned its attention to the elevator service. The four hydraulic passenger elevators and the steam-operated sidewalk lift have been reequipped so that they are now all electrically operated. The space gained by the abolishing of the high pressure steam plant is now used as a storage vault.

While such changes are of general interest to anyone concerned in building management they naturally make a stronger appeal to the tenants of the building, among whom in the Potter Building are the Board of Trade and Transportation, the Consulate of Sweden, and many insurance brokers.



The Stars of Earth

The shadow of the world has swept around
Leaping from hill to hill, and flowing back
In dusk that slowly overbrimmed the vales
And flooded all with darkness. Now I stand
Upon the height and watch the golden stars
Roll upward from the dark horizon,—sparks
From some celestial bonfire whirled on high
By roaring winds of space. The curving hills
Stretch out on either side to form a bowl
Black-sided, but inlaid with glittering lights
Upon the bottom where the village lies.
It seems as though the valley were a lake
Of sombre water where the stars above
Are mirrored doubly bright.
For many an age
The beauty and the wonder of the stars
Have thrilled the souls of men, and moved their songs,
But who can say these starry lamps appear
Less fair and wonderful than those that shine
In heaven above? The mighty stars on high
Man measures with his subtle instruments,
Reveals their ages, plots their journeyings,
Dissolves them into elements, but leaves
Unchanged their glory and their wonder. So
These earthly stars that he has made he knows
In substance and in powers, but none the less
Remains the wonder of their glowing life.
One with their brothers of the sky they shine
In light and beauty making manifest
Mysterious and universal force.

—Gorton Veeder Carruth

Decoration by Leslie Crump

Tallow Dips and Distaffs

THE obscure little antique shop, its dimly lighted corners often garbed in a mantle of dust, brings raptures, nevertheless, to the heart of the experienced antiquarian and the imaginative dreamer who sees there ghosts of forgotten romance. Perhaps it is because of the particularly luring way in which it beckons to and invites all antique-lovers to cross its threshhold to browse around among the rare old books and paintings, and to admire the delicate coloring of hand-woven rugs and glistening crystal. There is no telling what treasures its deep recesses may reveal: —andirons reminiscent of many a winter's night in the Colonies, a graceful tip-top table in polished mahogany, excellent portraits and paintings hanging or standing in dark places; brass candlesticks and pewter sperm-oil lamps crowding dangerously against a tall lamp whose crystal bowl is supported on a slender stem also of glass; wing-backed chairs pushed against the wall; beautifully made hooked rugs flung carelessly over an elaborately carved walnut desk; a spinning wheel whose song is dead, and a cradle that long ago ceased to rock in rhythm with a mother's crooning lul'a-bye; all together in close intimacy.

The idea was conceived by Jane Teller, a well-known antiquarian, to find, if possible, an old-time building wherein to exhibit her collection of early American antiques in an atmosphere more in keeping with their original purposes than is possible in the usual shop. The old Smith Mansion, sometimes called Smith's Folly, on Sixty-first Street near the East River, seemed to lend itself particularly to her plan and she immediately proceeded to obtain it. Miss Teller realized that this old stone dwelling with the historical atmosphere which pervaded it would be an ideal setting for her very complete and valuable collection of glass, china, pewter, brass, hooked rugs, furniture, paintings, and other art objects of the early American period.

Early Days of the Old Mansion

One hundred and twenty-two years ago Colonel William Stevens Smith, at one time aide-de-camp of General George Washington and later secretary of the American legation to England, bought a large estate overlooking the East River. He and his wife, Abigail Adams, the only daughter of John Adams, our second President, lived in the beautiful manor house which they are said to have made the center of hospitality. Colonel Smith, after his return from Europe, had been made the commander of the troops of the State of New York. At their disbanding he was appointed first inspector and surveyor of the customs and port of New York. His stay on the estate on what is now East 61st Street could not have been very long, for in 1808 he had retired to a farm in Lebanon, New York. It is said that he failed in business as a merchant and that his estate was sold. But while he was there he must have entertained royally, for he was a popular man, and both he and his wife were prominent in New York society.

The building that is now the Jane Teller Mansion became a tavern, one of the most famous on the Boston Post Road. In 1830 it was bought by one Jeremiah Towle, a surveyor of the Port of New York, and used by him as a residence. His daughters lived there until 1906 and after that it began to be used as a tenement, housing several families of Italians. But it survived the misuse it received and, a magnificent relic, has at last been restored to its former splendor. Characteristic of homes built in the early days, it has been so well preserved because of the materials put into it. The walls are entirely of stone, and are supported by large oak beams, one of which is twenty inches square and runs the entire depth of the house.

As an authority on the American period from the Pilgrim days until about 1840, Miss Teller gives instruction in an art long since dead. She has collected almost every type of spinning wheel known. On her old Colonial looms are woven, by members of her classes in spinning and weaving, home-spun tweeds, linsey-woolsey, linens, tapestries, and window draperies in an almost endless variety. Therefore when you approach the mansion with the intention of taking advantage of Miss Teller's invitation to inspect her collection, it is not surprising to hear the humming song of a spinning wheel. If you were to examine one of them in particular, you would find inscribed thereon the date 1725.

The exterior of the house is as it

Photograph by The New York Edison Company

This Old Mansion, Dating from 1799, is Now Called The Jane Teller Mansion, and is a Perfect Setting for the Beautiful Collection of Early American Antiques Housed There

Photograph by The New York Edison Company

The Quaint Entrance and Hall in the Old Mansion

was in the first days of its existence, but its surroundings have changed. No longer do broad lawns sweep down to a river's edge where graceful sloops ride at anchor. There are many neighboring houses that have sprung up in congested rows, and the traffic of the Queensboro Bridge rumbles almost overhead. The interior, however, is that of a Colonial mansion, spacious and lovely.

To wander through the rooms in this old place is an inspiration. From the iron knocker on the front door, under the arched interior of the entrance, across the low-ceilinged hall into the reception room on the right, to the dining-room and kitchen—ah! the kitchen with its fireplace—up the stairs and into the beautiful rooms on the second floor; the tour is a fascinating one, for each step brings you to something that bids you stay awhile and examine. Besides the furniture, lamps, and various utensils, there are many engravings, letters, autographs, and other historical trinkets. Among them are stirrups of General George Washington and a brass violin, made by Silas Homan who was a silversmith in Philadelphia, said to have been played around the bivouac fires at Trenton, Valley Forge, Princeton and Monmouth.

Of unusual interest is the lighting arrangement, a combination of antique style and modern method. The fixtures, of course, had to be in keeping with the rest of the house, and so Miss Teller designed them after the style of those of Colonial days. Her plan was carried out so that the reproductions are true to the period she has studied so thoroughly and carefully. The only concession to modern times is that instead of tallow dip candles or sperm oil, electric wires have been ingeniously concealed in the silver, brass, and copper lamps, candlesticks and candelabra.

In the main hall there is a candelabra which is a grouping of electric candles with small torch bulbs. It is decorated with clear crystal balls.

Photograph by The New York Edison Company

Although Old Fashioned Lighting Fixtures Have Been Placed in the Main Hall, They Are Lighted by Electricity, the Only Modern Innovation in the Old Mansion

The light that it sheds on the beautiful oil paintings is very well diffused. In the east, or Lafayette room, there are black and gold candelabra and side-wall brackets, splendidly reproduced from a set imported from England for the State House in Boston.

All in all Miss Teller has contrived a charming and exquisite setting for beautiful and rare objects of early American art. To see them in their own atmosphere is to see them at the best advantage. To jumble them into a small, dull looking space would seem almost sacrilegious. Old art has a personality and for it art lovers have a deep respect. The Jane Teller Mansion is a perfect setting for the collection as wonderful as the one now housed there.

The Power

After Stevenson's "The Wind"

Ben Franklin sent his kite on high
And caught you from the stormy sky;
Since then around us all you pass
Upon the wire or in the glass—
O power, a-going all day through,
O power, the many things you do!

I saw the different things you did,
But always you yourself you hid.
I felt you push, I heard you call,
But you I could not see at all—
O power, a-going all day through,
O power, the many things you do!

O you of light and strength and heat
In home or factory or street,
I know from all the things I see
You are a greater power than me—
O power, a-going all day through,
O power, the many things you do!

—*T M Bray*

District Offices of The New York Edison Company

Contract and Inspection Department

Broadway District

Temporary Office at 10 Irving Place, David T Brown, Manager; Telephone, Canal 8600. Boundaries: The Broadway District includes the territory south of Christopher and Eighth Streets, west of the Bowery, and south of Catherine Street.

Norfolk Street District

Norfolk Street Office at 20 Norfolk Street, L P Bendall, Manager; Telephone, Orchard 4261. Boundaries: The Norfolk Street District includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catherine Street.

Irving Place District

Office at 10 Irving Place, S F Fahnestock, Manager; Telephone, Stuyvesant 5600, Extension 405. Boundaries: The Irving Place District includes the territory between and including Eighth Street and Twenty-eighth Street from the East to North Rivers.

Forty-second Street District

Office at 124 West 42nd Street, W M Kerr, Manager; Telephone, Bryant 5262, Extension 98. Boundaries: The Forty-second Street District includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to the North Rivers.

Eighty-sixth Street District

Office at 151 East 86th Street, H S McGrath, Manager; Telephone, Lenox 7780. Boundaries: The Eighty-sixth Street District includes the territory north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park West.

One Hundred and Twenty-fifth Street District

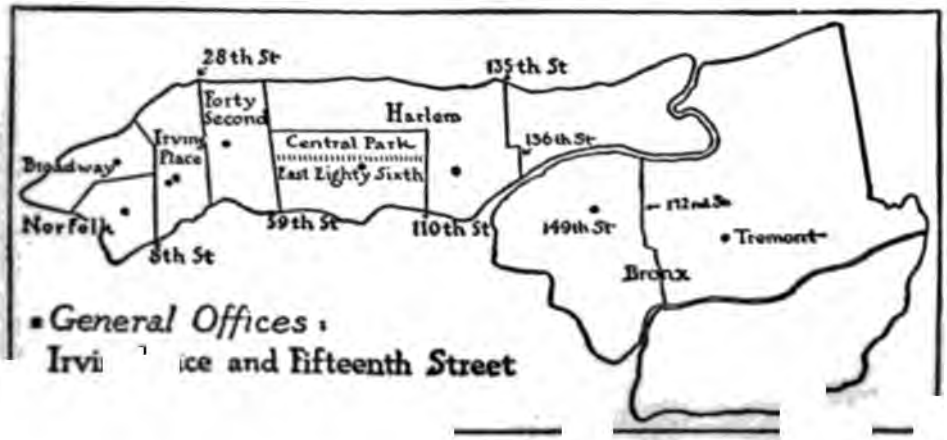
Office at 15 East 125th Street, William J Mears, Manager; Telephone, Harlem 4020. Boundaries: The One Hundred and Twenty-fifth Street District includes the territory bounded by the North River, Fifty-ninth Street, Central Park West, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St. Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St. Nicholas Avenue.

Bronx (One Hundred and Forty-ninth Street District)

Office at 362 East 149th Street, William A Ruenzler, Manager; Telephone, Melrose 9900. Boundaries: All territory lying between the Harlem and Bronx Rivers and between One Hundred and Thirty-second Street and East One Hundred and Seventy-second Street. The dividing number between the One Hundred and Forty-ninth Street Office and the Tremont Avenue Office, on all avenues with the exception of Third and Park Avenues, is 1499. On Third and Park Avenues, however, the dividing number is 3799.

Bronx (Tremont District)

Office at Tremont and Monterey Avenues, Albert Goldman, Assistant General Commercial Manager, Bronx District; Telephone Tremont 6900, Extension 225; Richard Goff, Manager, Tremont Avenue Office; Telephone, Tremont 6900, Extension 100. Boundaries: The territory covered by the Tremont Office extends from approximately One Hundred and Seventy-second Street, north to Yonkers City line; all territory lying between the Harlem River and Two Hundred and Twenty-fifth Street, and the Hudson River from Two Hundred and Twenty-fifth Street to Yonkers on the West, and the Bronx River on the East, including Woodlawn, Spuyten Duyvil, Riverdale and Mount Saint Vincent Districts.



• General Offices:
Irvi ice and Fifteenth Street

Board for missing No I Aug 1921

TECHNOLOGY DIVISION

The EDISON Monthly

SEPTEMBER 1921

THE NEW YORK EDISON COMPANY
Irving Place & 15th Street, N.Y.

The Edison Directory
and the Edison Showrooms

THE very great increase in the number of names listed, and consequently the broadened scope and added importance of The Edison Directory make it necessary to issue it as a separate publication rather than as a department of THE EDISON MONTHLY. The Directory in its new form will be distributed partly by mail and partly through the offices of The New York Edison Company. It will be sent without charge to anyone upon request.

The Edison Directory is published for the purpose of rendering the greatest possible assistance to those desiring to use Edison Service for any purpose. Its lists include the names of dealers in every form of electric appliance, manufacturers or their agents, and contractors who do electrical work in the territory served by this Company. So far as is possible, the accuracy of each name and address is carefully verified.

Another object of the Directory is to give to every manufacturer, agent, dealer, and contractor an equal chance with those desiring to purchase devices or to have equipment made.

The Company desires to encourage the establishment of the largest possible number of dealers in electrical devices, appliances, and incandescent lamps, and of independent electric contractors who do satisfactory work at fair prices. It is believed that this policy is in keeping with the public interest, and is aided through a directory of this nature.

Each manufacturer or agent has equal right to free space, electric current and demonstration in the various showrooms of the Company, and equal endorsement by the Company's representatives when talking with prospective purchasers. The Company's representatives are forbidden to recommend any particular device as compared with another, and final choice in the purchase must rest with the purchaser.

It might be added that the Company itself makes no sales (other than of incandescent lamps), nor does it install any kind of electrical equipment upon the customer's premises, other than directly identified with its service and meter. Appliances are shown and demonstrated, and an order from the purchaser will be received and transmitted to the manufacturer or agent of the appliance selected, without commission or charge of any kind for this service.

The New York E[illegible]n

September 1921

Trinity Church about 1775

VOLUME 13

CONTENTS

NUMBER 9

The Edison Monthly

	Page
The Edison Directory	Inside Front Cover
Editorials	146
Murals	149
Electrics, Old and New (Photographs)	152
Fire! Fire! Fire! (Verse)	154
Modern Fire Apparatus	155
Electric Refrigerators in Demand	158
Current Topics (Verse)	158
The Curb Indoors	159
Outlets	163
Edison District Offices with Map	Inside Back Cover

Copyright 1921, by The New York Edison Company

The Edison Monthly

Published by

The New York Edison Company

General Offices

Irving Place and Fifteenth Street

New York City

N F BRADY, President
WALTER NEUMULLER, Secretary
FREDERICK SMITH, Treasurer

Some forty years ago the first Central Station plant was built to supply electricity for lighting purposes. Since this field had been untouched up to that time, for a good many years the entire output of the station was devoted to lighting. By 1915, however, it was found that over fifty-one per cent of the energy produced was being used for industrial power. Ever since then the difference between the lighting and the power loads has steadily increased. This is very significant in indicating the growing confidence and dependence of industry on Central Station Service.

Central Station Service has proved its value many times as an economical, efficient, and dependable source of electrical energy for all industrial power purposes. It is the fine record it has made that speaks volumes for its desirability, and predicts not only a steady increase in its use, but also the time when all machinery will be operated electrically.

The final trials of the *U S S Tennessee*, an electrically driven battleship, conclusively proved the advantages of electric drive. The maximum speed attained was 21.38 knots an hour, and from top speed the ship is brought to rest in three minutes. A broadside of twelve 14-inch guns was fired without causing the slightest injury to the electrical equipment. This speaks well for the ability of electrical apparatus to withstand rough treatment. While particular emphasis has been laid on the economy of electric drive, and has been justified, the greatest advantage has been found in the flexibility which is possible in arranging the engine room layout and the ease with which the ship is controlled. Electric drive for industrial machinery has been found equally advantageous. Less floor space is required, thereby reducing overhead expense, and since electrically driven machines permit perfect control, more and better work is turned out.

Horse-drawn fire apparatus lends itself readily to motorization through conversion, a condition which makes it possible for any fire department to possess modern equipment and at the same time avoid the expense and waste of scrapping standard and time-proved apparatus.

As related elsewhere in this issue there are motorized steamers and ladder trucks, built originally to be drawn by horses, giving adequate, dependable and economical service in a number of American cities.

The fire engine and ladder truck need no description here. The steam pumping apparatus has been the all-important part of every fire department in the country for years past, and probably will be for years to come. The pumping equipment represents the last word in efficiency. Whatever drawback the engine may have had in the past has been due

entirely to its motive power. The same holds true for the aerial truck.

With the development of the motor vehicle, fire department officials sought some means of getting their apparatus to fires more rapidly than was possible with horses. Three engines which represent the solution of this problem have been in service in Brooklyn, Baltimore and Philadelphia for more than eight years. They are equipped with electric drive and are still giving good service. By similar conversion the standard aerial truck and its equipment of ladders has been retained by other cities.

But while conversion to electrically propelled apparatus offers a means of maintaining standard equipment in service, it by no means follows that this is the sole virtue of electric drive. Many steamers and trucks built in recent years have included electric motive power from the very start. Typical of these are the trucks at New Bedford, Mass. and the steamers at Paterson, N. J.

All in all, electric drive provides an economical means of propulsion both for old-time horse-drawn apparatus and for newly built equipment. The fire department which proceeds with a motorization program without first looking into the merits of electric drive is derelict to its own best interest.

Of the thousands of people who pass every day through the great rotunda of the new Cunard Building at 25 Broadway there are probably only a few who fail to pause a moment in admiration of the mural paintings which adorn the dome. Even those whose business brings them into this building every day and who, therefore, are familiar with these pictures, hardly can be unconscious of their presence and the mental stimulus they afford.

As methods of illumination have improved, interest in mural decoration has revived, and the work produced has been so beautiful, and has filled so well a long-felt want in the dignified decoration of modern office buildings, that its continued application is sincerely to be desired.

From the street curb to a great room wainscoted in Bottocine marble and, to the most minute detail, fitted out for the buying and selling of stocks, is the amazing jump which the famous New York Curb Market has made in the last few months!

It is a far cry indeed from the days of whistles and cat-calls, and mysterious waving of fingers; from the heat or the cold and the unchecked breezes of Broad Street; from a place where there was no roof but the sky and every shower was feared; a place utterly lacking in privacy and where dignity was impossible. Yet the Curb has taken very readily to its transplantation, and it accepts its shelter, its elaborate signal system, and its carefully regulated breezes, quite as a matter of course.

Electrically lighted, electrically ventilated, equipped with an electric elevator and a great electric signal system, all of which receive their current from the mains of The New York Edison Company, the New York Curb Market Building may be considered a model for stock exchanges throughout the country.

Photograph by Courtesy of Twenty-five Broadway Corporation

The Mural Paintings by Ezra Winter in the Dome of the New Cunard Building Are Beautiful Examples of This Type of Decoration

Murals

IF one is at all imaginative it is difficult to delve into the history of art without one's mind suddenly jumping its track—if such an expression is permissible—and running on to all sorts of curious highways and byways tremendously interesting. This is particularly true when one turns back the centuries as pages of a book to discover in what manner electricity has assisted or been responsible for progress in art as exemplified in mural decoration.

We learn in the first place that mural decoration is art applied to the adornment of wall surfaces and that it dates back to ancient Egypt. Temples, palaces, and dwelling houses all were decorated with pictures. Mural decoration was the inevitable rule.

How enhanced must have been the troubles of the house-hunting Egyptian possessed of an artistic sense! In the less expensive houses probably the mural decoration was of an inferior quality, perhaps almost indistinguishable, both on the exterior and interior walls of the house,—interiorly because of poor lighting and exteriorly because of the wear and weather. In the better houses, and of course in the palaces, great care was taken to obtain very artistic lighting effects and these, curiously enough, without the use of artificial light. On these buildings the pictures were deeply incised, with flat tints, graded according to the light, being delicate in the well illuminated parts and heavier in the darker apartments. In other words the artist was materially restricted in both the form and color of his subject by the absence of proper illumination, and so he resorted to cutting into the stone, to accent the outline of his picture, and using strong intense colors in dark places in his attempt to create something distinguishable and at the same time beautiful.

Babylonia and Assyria used colored tiles in relief in order to accentuate outlines, and metals and rich hangings to increase the strength of the color scheme.

In Greece the artists depended on the play of light and shade caused by projecting mouldings to bring into prominence their sculptured mural reliefs. So it goes through almost every nation and every age.

Difficulties of Early Decorators

Cutting into a decoration, or building it up by means of moulding, had to be resorted to to produce the effects now so perfectly and easily obtained through the use of proper illumination. Shortly before the perfection of the electric light murals were painted for very large halls or museums which received sufficient natural light through skylights or windows to make the exhibition of such paintings possible. Of course it was necessary that the paintings should be placed in such a way that they would receive the light at a proper angle. Even at that they were at their best during only a comparatively short period of the day.

The original mural paintings usually portrayed history or served to exploit and perpetuate the memory

of the dead. This custom changed, as simpler if less artistic means of maintaining records came into general use, so that gradually mural paintings became simply and solely to mean the decorative treatment of walls or ceilings of public buildings. It was natural enough that the subjects of these paintings should be austere and formal, in keeping with the character of the buildings they served to decorate.

Then came the advent of electric lighting which opened up vast possibilities for the use of mural decoration. The paintings could be placed anywhere in a room and with the proper adjustment of lights shown to the best advantage. There was still a tendency, however, to use murals only in a formal manner and it has been comparatively recently that they have come into more general use for the decorative treatment of private houses and hotels. The modern forms of mural decoration made possible by proper illumination are more imaginative, alive, and more romantic in character than were the large classic types formerly used for the decoration of public buildings. In shape, size, subject, and color they are more suited for home use.

Nowadays the painting is not applied directly to the wall as was the case in early times, but is painted on canvas which is stretched and set in the wall with the edges concealed by mouldings of appropriate design. The question now arises as to the sort of finish the picture should have. Obviously if it has an oily surface the chances are that the light, however it may be directed, will be reflected and destroy the effect of the picture. Therefore it is best that the painting should have what is called a mat finish; in other words, a finish that is not oily and that cannot reflect the light. So much for the painting itself.

In the placement of the lights designed to illuminate the picture many matters must be taken into consideration. For example if the picture shows figures that cast shadows, let us say to the right, the greater portion of light illuminating the picture should be directed from the left. At the same time the right side of the picture must be illuminated so that every part may show up to the best possible advantage. Concentration of light must be avoided because whether the picture has a mat or oil finish it will reflect concentrated light. It is best to light the picture indirectly and in this manner obtain a general illumination.

If, as is often the case, the decoration is close to the ceiling a tubular light concealed above and along the

length of the picture but not too close to it will produce the best effect. As a rule, however, murals in private houses are more in the nature of small panel decorations. These murals properly arranged, should not have to be illuminated by a special arrangement of lamps. The general lighting of the room should be sufficient, providing proper types of lamps and fixtures are used, to cause the paintings to stand out in their full value.

A very fine effect, though it may be considered a little theatrical, may be obtained in the illumination of, let us say, a sculptured relief set in a wall fountain, indoors or out-of-doors. By concealing a specially constructed lantern in some inconspicuous place the rays of light will fall directly on the object to be lighted. Lenses are usually used with such lanterns to diffuse the light and prevent reflection. An arrangement of this sort is used with great artistic effect in the lobby of the Neighborhood Play-House on Grand Street. Here a marble low relief set in the wall glows with a soft radiance, the source of which for a little while is quite indetectable.

Since the greater part of the present day development of mural paintings may be directly ascribed to the craftsmanship and art of the illuminating engineer, the scope of whose field seems steadily to broaden, it is very difficult even to conjecture what artistic heights the mural may reach within the next fifty or sixty years.

As murals have been well nigh indispensable adjuncts to the decoration of buildings in the remote past, so are they likely to become again in the future. The art was developed as far as it was possible with nothing but natural illumination available. With electricity supplying light of any intensity and of any color, the mural painter is offered great possibilities for the advancment of his art. A demand for mural paintings already exists. Hotels, libraries, railroad terminals, museums, and schools are being built every day. They are the logical places for such paintings; the art of the illuminating engineer makes them the possible places. The way lies plainly ahead for a great improvement in the decoration of our public buildings and our homes. The first step lies in the close co-operation between the artist and the electrical illuminating engineer—for it is certain that whatever the development of mural painting may be, it will be very closely related to a parallel development in the art of artistic illumination.

Photograph by The New York Edison Company

As May Be Seen From This Picture, the Early Electrics Were Very Different From Those of Today. But in Their Time They Were Doubtlessly Considered Quite Smart, as They Majestically Rolled Through the Park or Up the Avenue

Photograph by Van Der Weyde

The First Taxis to Appear on the Streets of New York in 1898 Were Electrics, But Equipped With Hard Rubber Tires. Since Many Streets Were Cobbled at That Time, the Joys of Riding Must Have Been Somewhat Mixed With Pain

Photograph by The New York Edison Company

Beautiful Finish and Comfortable Upholsterings, Coupled With Ease of Operation and Control Make the Modern Electric the Ideal Car For Shopping and the Theatre

Photograph by The New York Edison Company

The Electric Threads Its Way Through City Traffic With the Greatest Ease. Efficient and Economical, It Represents the Last Word in Passenger Cars

Fire! Fire! Fire!

When the Red Cock crows and the engine gong
Sends down the street its warning song
I thrill at the sound of its clangor loud
And join in the rush of the hurrying crowd
Eager to lead where the tender goes
With its load of black and squirming hose,
Serpentlike in the sloppy street
In python joints of a hundred feet,
From where the hydrant leaks and sprays
To the nozzle end with its drenching rays,
Fighting its foe in the blazing walls
Heedless of risk as the brick-work falls.
O, rare is the sport when the Red Cock crows
And the engine pump its torrent throws!

Don C Seitz

Decoration by W B Conner

Modern Fire Apparatus

ALTHOUGH electrically operated fire apparatus is far outnumbered by gasoline driven engines and trucks, there are several installations in cities throughout the country which prove beyond question that the electric is thoroughly suited for fire department work. All told there are sixty-six pieces of electrically propelled fire apparatus. They are serving in ten different cities. What they lack in numbers they make up in dependable performance—witness the eight machines installed during 1910, 1911, and 1912 which are still giving good service. The installations range from single pieces in Newark, N J, Brooklyn, N Y, and Baltimore, Md, to the twenty-one vehicle fleet in Paterson, N J. Camden has twelve electrics, Philadelphia, Pa eleven, Springfield, Mass six, Grand Rapids, Mich six, New Bedford, Mass four and Akron, Ohio two.

All of this fire fighting equipment is the product of two electric vehicle factories, the Couple Gear Company of Grand Rapids and the Commercial Truck Company of Philadelphia. The apparatus built by the Commercial Truck Company embodies the principle of the individual motor mounted on each driving wheel; Couple Gear apparatus uses the familiar couple gear freight wheel, in which the motor is mounted within the wheel. While a great many pieces of the apparatus are entirely new, some represent conversions from apparatus formerly horse-drawn. The conversion is accomplished by removing the driving gear provided for harnessing the horses, extending the frame of the vehicle, and installing the battery

Photograph by The New York Edison Company

With an Aerial Truck, Hose and Chemical Wagon, and a Steamer in Service for More Than Six Years, Company Number 9 in Philadelphia Claims to Be the First "All Electric" Fire House in America

The Converted Steamer of the Baltimore Fire Department Has Been in Service Since 1913

box, motors, wheels, and steering gear. The advantage of such a procedure is evident for it retains in service perfectly good fire apparatus with the added advantages of the speed of the motor vehicle and economy of the electric. This is particularly true of the steam pumping engines;—the pumping apparatus is of a standard type, thoroughly dependable and the most important element of every fire department. The problem is to get this pump to the fire as quickly as possible. This is accomplished through the conversion, the steam boiler and pumps remaining unchanged.

To Springfield belongs the distinction of being the first city to use electrics. In 1910 the Fire Department installed two vehicles, an aerial and a hose and chemical wagon. These were built by the Couple Gear Company and drive was through all four wheels. In 1911 a four-wheel tractor was installed, converting a horse drawn aerial into a motor vehicle. Another aerial, and a hose and chemical wagon followed in 1912, and a third aerial in 1914. Thus the Springfield department has four electrically operated ladder trucks and two hose and chemical wagons. Answering a recent inquiry Chief W H Daggett stated, "I may add that all six are in good condition and giving good service."

While Springfield boasts the oldest fleet of electrics, Paterson has the largest installation, twenty-one machines guarding the Silk City from the fire menace. The equipment for Paterson was built by the Commercial Truck Company. There are five steamers, four converted steamers, three aerial trucks, six hose and chemical wagons and three hose and chemical wagon conversions. The first of the Paterson engines was delivered in 1917 and others have been added every year since. There is some interesting history in the conversion of the Paterson steamers, for they served originally as horse-drawn apparatus. Several years ago when motorization was first considered, gasoline tractors were added; these proved unsatisfactory and when electrification was decided upon, the gasoline tractors were discarded and electric motors and storage batteries took their places. Thus in a single piece of apparatus, three

An Electrically Propelled Steamer Built by the Commercial Truck Company for Camden, N J

types of propulsion are represented.

During 1912 the Couple Gear Company completed three other steamer conversions, one for Baltimore, one for Brooklyn, and one for Philadelphia. All three engines are still in service and showing marked economy over the horses they replaced. The Baltimore engine began service on February 6, 1913 and up to February 4, 1921, according to Chief Engineer August Emrich, had responded to 816 alarms, covering 1325 miles. In this period there have been but two battery renewals. The engine started with a battery that had already seen service. This was replaced in August 1914, the new battery remaining in service until January 29, 1919 when it was replaced. During the five years life of the second battery the total discharge in ampere hours was 4801 and the mileage 587.5. During the eight years, the engine was out of service only twice and each time because of armature trouble. The total time thus lost was only four hours.

One of the Four Electric Aerials Built by the Couple Gear Company for the New Bedford, Mass Fire Department

During the period from 1913 to 1916 Philadelphia installed in addition to the first steamer, ten pieces of electrically propelled apparatus—three steamers, two high pressure hose wagons, an aerial and four combination hose and chemical wagons. These were all built by the Commercial Truck Company. Fire Company No 9, on Germantown Avenue in the suburbs of Philadelphia is the first fire house in the country to be entirely equipped electrically. Engine No 9, with a combination hose and chemical wagon and Aerial Truck A were installed in 1915. This company covers a suburban territory with long runs and many hills. They average 150 calls a year and have made runs as long as fifteen miles. On one alarm a speed of thirty-five miles an hour was attained. Captain Lewis Root of this company is authority for the statement that the apparatus has never been out of service because of an electrical break-down.

Philadelphia's neighbor city, Camden, N J, has also had an interesting and convincing experience with electrics. The Camden equipment includes five steamers and seven hose and chemical wagons, built during 1915-16 by the Commercial Truck Company. Captain Peter B Carter has had very satisfactory service from the storage batteries, in fact the apparatus was in service five years before the first battery renewal became necessary. This he attributes to the fact

that his battery men have been carefully schooled in the care of equipment. In fact members of the Camden Department have been detailed to the factory of the manufacturers to learn the details of electric vehicle care.

The Grand Rapids Department has also had very satisfactory battery service. The battery on Aerial Truck No 1 was installed in November 1917 and there is every expectation of at least three years more of service. Care and skilled attention explain it. The captain of the company has made a thorough study of batteries and gives them his personal attention. Gravity readings of every cell are taken monthly and when the reading is lower than 1280 new acid is added. The accumulation of sulphate on the negative plate is overcome by slow overcharge every month. In addition to the aerial, Grand Rapids has an aerial tractor, which replaced horses, and four service trucks. This whole equipment was overhauled three years ago and there has not been a cent spent on repairs since.

Other electric vehicle installations are at New Bedford where there are four Couple Gear aerials, Akron where there are two Couple Gear tractors, and Newark where there is one Commercial Truck aerial.

Electric Refrigerators in Demand

During the recent period of sultry weather there was reported a large increase in the sale and installation of both commercial and household electric refrigerators. It is evident that there were many who realized what the value of such apparatus would be to them, and they hastened to select their machines in order that they might have the use of them during the warmest and most trying months.

In the commercial world there are restaurants, florists, butchers, dairymen, confectioners, and many others who found electrical refrigeration a great success because of its economic and efficient character. No matter how high the temperature of the air outside, a low degree is always maintained within. There is no waste from melting ice and the cost to operate the attached motor is not high. Due to the fact that the process is automatic the owner is independent of a refrigeration supply from an exterior source.

The household machine provides the same conditions and, as a waste-eliminator, scientific, automatic, efficient, and therefore economical piece of apparatus, it is coming more and more into demand. The owners of these machines continue to express their appreciation of and satisfaction with electric refrigeration.

Current Topics

"I love the Sea," says the Light-house man,
"The waves' wild current leaping,
Where the lamp gleams far
Like a guiding star,
I do my Light-house keeping."

"I love the C ——" says the modern wife—
"The City, never sleeping,—
Where I turn each switch
For the current which
Makes joyful light House-keeping."

—Wanda Moore

The Curb Indoors

WITH the rapid advance which in recent years has carried it to first place in world finance, New York naturally has become the most important centre for transactions in the bonds and shares whose fluctuations so largely reflect the trend of commerce and industry. To the exchanges whereon trading is conducted and current values are established and duly registered there was added recently the new business home of the Curb Market.

Rising in architectural dignity on Trinity Place, overlooking the lichen-grown slabs which mark the resting place of New Yorkers of a bygone day, this structure in a peculiar sense is a monument to the genius alike of architects, engineers, and builders. It is grounded on the rock. It is framed in steel. It is walled in stone and brick. Within, science has contributed to the requirements of modern business life what have come to be recognized as essentials with respect to lighting, heating, ventilation, and communication.

Sturvett and Van Vleck, Architects

Interior of the New Curb Exchange Building. The Electrical Equipment is Most Complete, and Includes an Elaborate Ventilating System

The plot whereon the building stands extends from Trinity Place to Greenwich Street. The building is 100 feet high, of classical design, with

gray brick rising from a base of limestone. The board room is entered from the Trinity Place front while the offices and committee rooms are on the Greenwich Street side. A restaurant with all the modern appointments is in the basement. It is within two minutes walk of Wall Street.

In the type of business such as is carried on at the Exchange the slipping of one cog in the whole vast machine may result in serious complications. That is why the governors gave careful attention to the equipment of the building, and why Central Station Service—efficient and dependable—was chosen to supply the electrical requirements.

The board room is a chamber impressive in its dimensions. It is 104 feet long, 92 feet wide and 65 feet high. The side walls are wainscoted in Bottocine marble. Corinthian pilasters frame the lofty windows, and six impressive chandeliers in harmony with the general architectural scheme are suspended from the ceiling. Each fixture supports three rows of frosted bulbs.

At each end of the trading floor are the stands of the telephone operators. Seven rows deep, these stands are arranged on a series of steps so that each commands a clear view of the floor. It is through the operators at these desks that all messages between brokerage houses and floor traders must pass, and communication between the operator and the brokerage offices is by telephone. In order to pass a message on to the trader the operator uses a very ingenious calling device which flashes numbers in different colors on a large annunciator board. It is here that one finds the great difference between the communicating system of the old outdoor days and that of the present.

In the old days a whole corps of operators crowded each of the few rooms that overlooked Broad Street, so that frequently messages coming over twenty different telephones were passed on through a single window. With a "buy" or a "sell" order to deliver the operator secured the attention of the man in the street by means of a specified whistle signal or a distinctive call. Then by means of mystic signs he delivered messages involving thousands of dollars. In contrast with the old crowded window sills each operator now has his own little desk with telephones at one hand, his order pads in front of him, room for a sandwich, and the annunciator signal at the left.

When the operator has an order to transmit he flashes the trader's number on the board and the trader comes to the desk and receives a written order slip. There are no more whistles, or cat calls, or mysterious waving of arms. He then proceeds to the trading post of that particular stock and if the price is right completes the transaction. No matter what activity may be taking place on the floor, the trader always has one eye on the board for his call number.

So different is all this from the old days and so hard is it to break the habits of years, that the directors of the market had to prohibit the use of the old signalling system. They even prepared a schedule of fines. There was little need for this, however, for the new calling system is so superior to the old, that the traders had little

trouble in getting away from the old practices.

The call system was installed by the Viking Sign Company, and is another one of the features in which electricity plays a leading part in the operation of the Curb. The big board with its five hundred numbers is divided into four parts. These are built into the end walls behind the telephone operators,—two at each end. From these boards the wires run to the desks of the operators. The trader's number may be shown in any one of three colors, white, red or green, each color having a particular meaning. In the call system there are more than 120,000 feet of wire and 2,500 lamp receptacles, and the material weighs more than twelve tons. Each glass number is four and one quarter inches high and, as the Viking raised figures are used, can be read from any corner of the room.

To provide the Exchange with telephone service the New York Telephone Company had first to move 1500 private lines and run new cables out of the downtown central which serves this part of the financial district. The wires enter the building through a terminal frame equipped with the necessary repeating coils and batteries. To connect the various parts of this apparatus required the soldering of several thousand contact points. No switchboard is in use, the wires running through the terminal board direct to the several hundred individual stations.

Photograph from the New York Telephone Company

Boys Perched in Nearby Windows Used to Receive by Finger Signal Orders Taken on the Curb and Forward Them to Their Respective Offices

get breakfast with the percolator connected there and the toaster there. When I want to use the vacuum cleaner to sweep up any crumbs that may have dropped I can attach it where the lamp has been disconnected. It is quite wonderful to be able to do things out-of-doors just as you can do them indoors. I took particular pains in having all the rooms wired with the same regard for the placing of outlets."

Then she began to enlarge upon her ideas about the wiring of homes, new and old.

"Not only is it wise to plan so as to obtain the best lighting effects in the most convenient way, but also one should think about the appliances to be installed. In order that they may be used to the best advantage there should be an adequate number of outlets.

Outlets Offer Many Conveniences

Outlets, generously placed, provide conveniences of such as one might not have dreamed. Wall brackets, floor outlets, baseboard and special outlets, conveniently located, make it possible for several duties to be performed electrically simultaneously. There are several details well worth considering.

As well as the element of safety there are those of beauty and utility. A switch placed in a wall just to the right or left of the entrance makes it possible for one to turn on the light with ease, and saves awkward fumbling around in the dark and perhaps stumbling over objects in the room while searching for the light in mid air. As has often been observed in the case of an old-fashioned chandelier from which wires dangle over the breakfast table in a provoking tangle, the effect is not pleasing nor is the result satisfactory. With a floor outlet to which a percolator and a grill can be attached the cords can be pushed almost out of sight under the table. The extra outlet does away with the necessity of disconnecting any of the lights. It is quite possible also to have a connection plate placed on the side of the table. A baseboard outlet in the dining room presents a convenient place for attaching a vacuum cleaner, electric fan or heater, lamp, or any extra table appliance.

In the electrical kitchen there should be enough outlets for cooking and laundry equipment, so arranged as to save time and energy while the devices are being used. The other rooms in the house all should have their outlets. The lighting fixtures should be artistic as well as practical. The style and size of the fixture therefore should depend upon the style and size of the room. The use of wall brackets is advisable where the light is to be concentrated in one particular place. In bedrooms and bathrooms, for instance, brackets may be adjusted on either side of mirrors.

Any one who visited a house where the wiring for electricity had been done with careful attention to detail could not help noticing the comfort obtained by the use of appliances in any room. The glow of a reading lamp on a porch at night makes anyone smile with pleasure. Indoors and outdoors electricity with properly placed outlets makes the world a cozy place.

District Offices of The New York Edison Company

Contract and Inspection Department

Broadway District

Temporary Office at 10 Irving Place, David T Brown, Manager; Telephone, Canal 8600. Boundaries: The Broadway District includes the territory south of Christopher and Eighth Streets, west of the Bowery, and south of Catherine Street.

Norfolk Street District

Norfolk Street Office at 20 Norfolk Street, L P Bendall, Manager; Telephone, Orchard 4261. Boundaries: The Norfolk Street District includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catherine Street.

Irving Place District

Office at 10 Irving Place, S F Fahnestock, Manager; Telephone, Stuyvesant 5600, Extension 405. Boundaries: The Irving Place District includes the territory between and including Eighth Street and Twenty-eighth Street from the East to North Rivers.

Forty second Street District

Office at 124 West 42nd Street, W M Kerr, Manager; Telephone, Bryant 5262, Extension 98. Boundaries: The Forty-second Street District includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to the North Rivers.

Eighty-sixth Street District

Office at 151 East 86th Street, H S McGrath, Manager; Telephone, Lenox 7780. Boundaries: The Eighty-sixth Street District includes the territory north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park West.

One Hundred and Twenty-fifth Street District

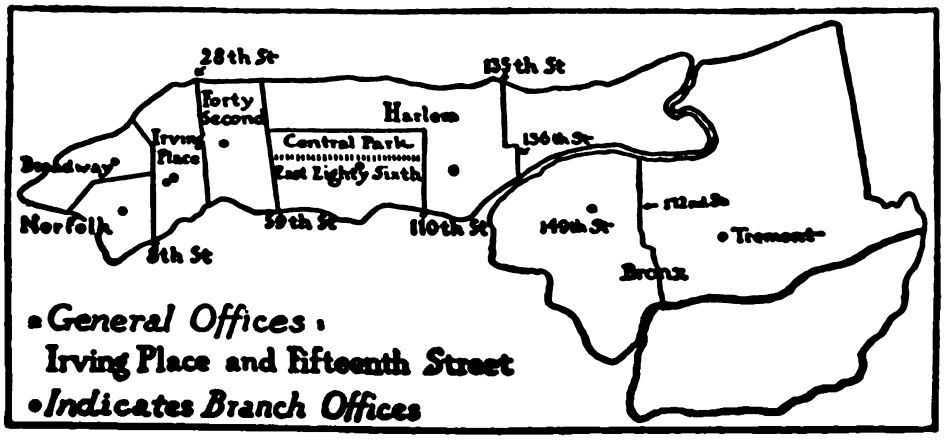
Office at 15 East 125th Street, William J Meara, Manager; Telephone, Harlem 4020. Boundaries: The One Hundred and Twenty-fifth Street District includes the territory bounded by the North River, Fifty-ninth Street, Central Park West, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St. Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St. Nicholas Avenue.

Bronx (One Hundred and Forty-ninth Street District)

Office at 362 East 149th Street, William A Ruenzler, Manager; Telephone, Melrose 9900. Boundaries: All territory lying between the Harlem and Bronx Rivers and between One Hundred and Thirty-second Street and East One Hundred and Seventy-second Street. The dividing number between the One Hundred and Forty-ninth Street Office and the Tremont Avenue Office, on all avenues with the exception of Third and Park Avenues, is 1499. On Third and Park Avenues, however, the dividing number is 3799.

Bronx (Tremont District)

Office at Tremont and Monterey Avenues, Albert Goldman, Assistant General Commercial Manager, Bronx District; Telephone Tremont 6900, Extension 225; Richard Goff, Manager, Tremont Avenue Office; Telephone, Tremont 6900, Extension 100. Boundaries: The territory covered by the Tremont Office extends from approximately One Hundred and Seventy-second Street, north to Yonkers City line; all territory lying between the Harlem River and Two Hundred and Twenty-fifth Street, and the Hudson River from Two Hundred and Twenty-fifth Street to Yonkers on the West, and the Bronx River on the East, including Woodlawn, Spuyten Duyvil, Riverdale and Mount Saint Vincent Districts.



TECHNOLOGY DIVISION

The EDISON Monthly

OCTOBER 1921

THE NEW YORK EDISON COMPANY
Irving Place & 15th Street, N.Y.

The Edison Directory
and the Edison Showrooms

THE very great increase in the number of names listed, and consequently the broadened scope and added importance of The Edison Directory make it necessary to issue it as a separate publication rather than as a department of THE EDISON MONTHLY. The Directory in its new form will be distributed partly by mail and partly through the offices of The New York Edison Company. It will be sent without charge to anyone upon request.

The Edison Directory is published for the purpose of rendering the greatest possible assistance to those desiring to use Edison Service for any purpose. Its lists include the names of dealers in every form of electric appliance, manufacturers or their agents, and contractors who do electrical work in the territory served by this Company. So far as is possible, the accuracy of each name and address is carefully verified.

Another object of the Directory is to give to every manufacturer, agent, dealer, and contractor an equal chance with those desiring to purchase devices or to have equipment made.

The Company desires to encourage the establishment of the largest possible number of dealers in electrical devices, appliances, and incandescent lamps, and of independent electric contractors who do satisfactory work at fair prices. It is believed that this policy is in keeping with the public interest, and is aided through a directory of this nature.

Each manufacturer or agent has equal right to free space, electric current and demonstration in the various showrooms of the Company, and equal endorsement by the Company's representatives when talking with prospective purchasers. The Company's representatives are forbidden to recommend any particular device as compared with another, and final choice in the purchase must rest with the purchaser.

It might be added that the Company itself makes no sales (other than of incandescent lamps), nor does it install any kind of electrical equipment upon the customer's premises, other than directly identified with its service and meter. Appliances are shown and demonstrated, and an order from the purchaser will be received and transmitted to the manufacturer or agent of the appliance selected, without commission or charge of any kind for this service.

The New York Edison Company

October 1921

The Railroad Depot at Fourth Avenue and Twenty-seventh Street in 1857

VOLUME 13

CONTENTS

NUMBER 10

The Edison Monthly

	Page
The Edison Directory	Inside Front Cover
Editorials	166
Defective Insulation	167
Autobiography (Verse)	168
Brighten the Corners	169
The Inscrutable (Verse)	172
Mechanical Kneads	173
Survival of the Fittest (Verse)	175
The New Home of S W Strauss & Company (Photographs)	176
Allen Street	178
Then and Now (Verse)	180
Tireless Workers	181
Outdoors Indoors (Verse)	184
Edison District Offices with Map	Inside Back Cover

Copyright 1921, by The New York Edison Company

The Edison Monthly

Published by

The New York Edison Company

General Offices

Irving Place and Fifteenth Street

New York City

N F Brady, President
Walter Neumuller, Secretary
Frederick Smith, Treasurer

Electricity harnessed to an air compressor is proving an important factor in maintaining production in several manufacturing establishments, according to a recent issue of *Factory*. In textile and knitting mills, the air is filled with lint and fine bits of thread which accumulate in the open parts of the sewing machines, in the windings of motors, and on the bearings of the line shafting. This condition requires the frequent stopping of the plant for cleaning.

Where the electrically operated air compressor is used, however, the machinery is cleaned without any loss of productive time, for the compressed air literally "blows the trouble away." The outfit at the textile mills is portable and consists of a tank equipped with a two-cylinder compressor driven by a motor of one half horsepower. The blowing out is done with the air at a pressure of from sixty to ninety pounds. With this equipment one man cleans an installation of twenty-five motors ranging in size from two- to five-horsepower, the lineshafts, seventy-five electric fans, and nine sewing machines.

In the knitting mill the lint from the flying needles is thrown into the air in greater quantities, and each machine must be blown clean several times a day. Therefore, instead of the portable machine, there is a central compressor plant with pipe lines carrying the air to each machine.

Not all serious troubles will dissolve themselves readily into thin air. Under the emphatic ministrations of compressed air there are few troubles of this sort which cannot be easily overcome.

While there is the usual diversification in the tasks which electricity has been called upon to perform, it is as a "servant in the home" that the magic current, as demonstrated at the Electrical Show of 1921, makes its strongest appeal.

There is no task in the home which cannot be performed by electricity better, more rapidly, and with less expenditure of effort, than by any other method. What woman would trade her electric washing machine for the old rubbing board and tub? Who prefers the dish pan to the magic sprays of hot water? Who would lay aside her vacuum cleaner in favor of brooms and brushes and dust pans? Is there any one who would rather handle fifty pounds of ice than watch an automatic refrigerator work? Who would sacrifice the comfort, the cleanliness, and the beauty of modern lighting for the lights of other days?

Notwithstanding the vast importance of electricity in every branch of industry, it is in the humbler tasks in the home that it touches the lives of every one of us, and it is in the kitchen, or the pantry, or the laundry that we should miss it most if by some inconceivable misfortune we should be permanently deprived of it.

Defective Insulation

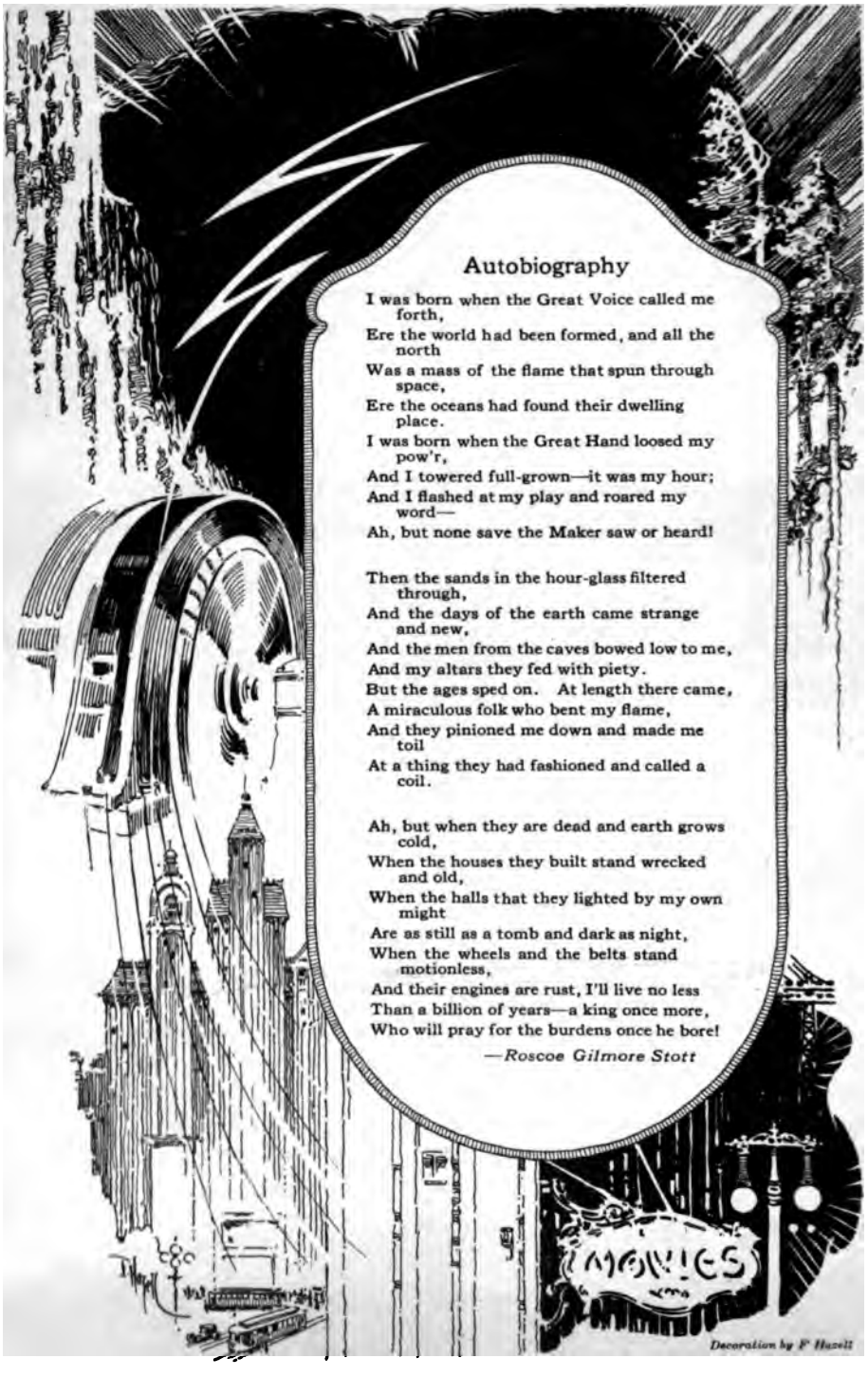
An Editorial from the New York Herald of September 1

Immediately after the great fire on the army piers in Hoboken the other night it was gravely announced that the cause of the flames was supposed to be "faulty insulation" of electric conductors. Indeed, whenever the authorities don't know how a fire started they attribute it to faulty insulation or incendiarism or, more rarely, to spontaneous combustion.

It is of course possible that the North River pier fire was due to faulty insulation. If it was, the officers responsible for the upkeep of the property are responsible for the faulty insulation. If the wiring on the piers was done as it should have been in the beginning and was kept under intelligent inspection there was no chance for faulty insulation. If the work was not done well originally or if inspection and repairs were neglected, the insulation may have gone wrong. In that case the blame rests with the men charged with upkeep of the plant.

The fact is the charge that faulty insulation is responsible for fires is a convenient way of hiding ignorance. Nobody is likely to come to the defence of the wiring. Far fewer fires than are generally supposed originate in electric apparatus, and such apparatus is as safe as any human device can be when it is properly installed and treated.

It was once popular to attribute all fires of mysterious origin to the act of God. Later spontaneous combustion came into official favor as a cause of fires, but when it was realized that this commonly meant gross carelessness in handling wastes it lost some of its popularity. Now incendiarism and faulty insulation are the refuges of those who make official guesses to explain conflagrations. As soon as it is generally understood that faulty insulation spells culpable neglect it is to be expected this phrase will be laid aside.



Decoration by F. Hazell

Autobiography

I was born when the Great Voice called me forth,
Ere the world had been formed, and all the north
Was a mass of the flame that spun through space,
Ere the oceans had found their dwelling place.
I was born when the Great Hand loosed my pow'r,
And I towered full-grown—it was my hour;
And I flashed at my play and roared my word—
Ah, but none save the Maker saw or heard!

Then the sands in the hour-glass filtered through,
And the days of the earth came strange and new,
And the men from the caves bowed low to me,
And my altars they fed with piety.
But the ages sped on. At length there came,
A miraculous folk who bent my flame,
And they pinioned me down and made me toil
At a thing they had fashioned and called a coil.

Ah, but when they are dead and earth grows cold,
When the houses they built stand wrecked and old,
When the halls that they lighted by my own might
Are as still as a tomb and dark as night,
When the wheels and the belts stand motionless,
And their engines are rust, I'll live no less
Than a billion of years—a king once more,
Who will pray for the burdens once he bore!

—*Roscoe Gilmore Stott*

Brighten the Corners

ONE of the most pathetic figures to be found among ex-industrial workers is the man with stooped shoulders or bent back; the man whose sleeve hangs empty from the elbow; the one whose eyes are dim or, worse still, even sightless; the man who, while subjected to the dangers lurking in the corners of a poorly equipped factory, gave of his youth and strength and health that the demand of industry might be met. What happened to him, after he was forced to retire and live on the charity of his friends, was his own misfortune. It was too bad, to be sure, that a product had to be supplied to the public at the expense of a pair of eyes or an arm; but accidents were bound to happen in factories and so one might just as well make the best of them! However, the toll of accidents so common in factories a decade or so ago could not be ignored. With the startling realization that many tragedies were being staged in the industrial world, a movement was started to bring about changes in factory conditions so that men and women might work in safety. Human life was too valuable to be fed to machinery or to be allowed to shrivel in dark corners.

The factory of to-day is being built and equipped so that only favorable and pleasant conditions may exist, wherein both employer and employee benefit. It is unnecessary that there be any such appalling number of accidents as there have been in American plants in the past.

One big improvement in factory equipment that greatly helps in safeguarding employees' lives is in the lighting system. Statistics show that there was a grave need for this change for out of 91,000 industrial accidents that occurred in 1910, 23.8% were due to the lack of adequate lighting. After eight years the percentage of accidents, due to the same cause, was reduced to 18%. The steady growth of interest taken by factory owners is resulting in still further reduction of this percentage.

The Importance of Good Lighting

Too much stress cannot be laid on the importance of good lighting in factories. So much depends upon it and it is one of the greatest assets to the operating conditions necessary in order to produce the maximum output of any industrial plant. Where there is poor illumination it is natural that workmen are going to be hindered and compelled to work slowly. This means a loss of time, as well as the possibility of spoilage. On the other hand where old methods of illumination have been replaced by new, it is found that there is a speeding up of production. In one steel mill a 10% increase in the work was turned out.

Besides the growth in the output of their product, industrial plant managers have found that the lighting costs are, as a rule, reduced, good lighting costing actually less than had the inadequate system. Not only is there the reduction of accidents, as well as the elimination of spoilage and the increase of individual output, but also the contentment of the employees is strengthened and the general morale of the plant improved.

The factory of the tallow-candle and kerosene lamp days must have been a dreary place. Men could not carry on their labor after dark because the lighting system was so poor. On very dark days and during the winter months the greatest number of accidents happened, for, being unable to see well, workers had to risk being caught in the machinery. When conditions were very bad the working day was shortened. Prior to 1890, there was very little work done in mills after dark; but with the coming of electric lighting and the rapid strides that it made, the factory day was lengthened and the two—and three—shift system became possible.

There are several requirements for good lighting. In the first place there must be a sufficient amount of light,of the proper quality and intensity, distributed over the work and the surrounding areas. Of course, the limit of its intensity depends upon the kind of work and the room in which it is being done. Fine work, for instance, rapidly moving machinery, and dark surfaces, require more than would be necessary under other conditions. While the average range of factory illumination is from one to six foot candles, there are some manufacturing conditions which require far more light, and occasionally an intensity of one hundred foot candles is called for.

Illustrations by Courtesy of the National Electric Light Association

The Interior of a Factory Where a Poor Lighting System Was Employed

A steady source of light and an absence of glare are necessary to good vision. Where illumination is not uniform the muscles and nerves of ones eyes are constantly being taxed for the very reason that the iris is striving to adjust itself to each change in the light. Glare, or "light out of place" as it has been called, is caused by poor distribution or by reflection on a polished or bright surface. It is also a hindrance to vision.

Light that is sent direct to the eyes from its source is not well distributed. A glare of that kind can

be avoided by the lengthening of the distance between the light source and the eyes of persons working in the room, and by the installation of the right kind of equipment for reflecting and diffusing the light. It has been found that, if the light source is of a low intrinsic brilliancy, with the removal of the glare its effect wears away in a short while. On the other hand, if the source is of a high intrinsic brilliancy, the effect upon the eyes may be more or less permanent.

"Specular reflection," or reflection upon bright or polished surfaces, is particularly trying to eyes because they are sensitive to light entering them from below. Equipment that is chosen to minimize this fault should have the light filament shielded so that it can not be seen.

The planning of lighting systems, then, is another of our important industrial problems. Plant engineers have carried on experiments to determine the effect of improved lighting on the general output of a factory and on the number of accidents that occur. The results have satisfied them that the changes were made for the good. The increases were from 10% to 20% in output, and factory managers who had given the new system a trial had no desire to go back to the old way. The general or overhead system of illumination seems to be the best all around, although local lighting may be the only solution in particular cases; but lights that are close to work being done near an operator's eyes shine more strongly into the eyes than on the work. The results are bound to be bad, and it is from just such conditions that a great deal of eye strain has come. Reflectors and lamps can be placed so that, although the operators' eyes are protected from the light source, their work receives a satisfactory amount. Even then, it has been found, some general lighting is beneficial. It can be supplied in moderation from lamps installed overhead. Lighting specialists can tell what systems will be the most suit-

A Decided Increase Was Realized in the Output of This Factory After Installing an Overhead System of Illumination

able as a part of the productive equipment of a plant and no lighting installation should be planned without competent advice.

Any industrial plant or factory can now have a lighting system best suited to its particular kind of work. During an average of about 20% of the working time it is necessary to employ an artificial means of illumination. This does not include time spent on night work. Where night work must be done particularly exact consideration should be given to artificial lighting.

Direct lighting in the overhead system is used more commonly than any other kind. By enclosure in globes or by the use of reflectors and frosted lamps the light can be well diffused and distributed.

In the overhead system it is essential to provide light from several directions in order to illuminate all sides of the material being handled, thus preventing heavy shadows that would otherwise be present. There may be shadows but they should be soft, not dense. The light, therefore, should be as near like natural light as possible. By indirect lighting the rays are reflected up to the ceiling and from there down to the work below. Reflected light of this nature eliminates the glare of the lamps and reduces the possibility of reflected glares on polished surfaces. If there are any shadows they are soft.

The semi-direct lighting system, which is rarely used in industrial illumination, is a combination of direct and indirect lighting. Part of the light is reflected to the ceiling while the other part passes through a bowl of translucent glass placed beneath a unit.

Good lighting is an asset. To place a workman in a poorly lighted workroom has been likened to blindfolding him and assigning him to a task, which would be almost hopeless. Under such a condition even the best of workers could not do himself justice. Spoilage of material and accident to the individual would be the probable result. If the workman is to be efficient he must be given good conditions under which to perform his tasks, and handicapped by poor light he is not working under good conditions. The best tools and the best equipment without the best lighting can not contribute to the efficiency of a plant. But these factors used under an adequate illumination system unite with it for the good of the industry in which they all are being employed.

And so it has come about that systems of lighting may be installed in factories at a reasonable initial and operating cost; a system that is simple, reliable, and easy to maintain; a system that will solve many of the problems of the employer and employees; a system that increases the production of the plant in which it is installed and increases the efficiency of the workmen responsible for the output.

The Inscrutable

You laugh at those who harness you
And talk in terms of learning deep
Of what you can or can not do.
Beside the secrets that you keep,
The greatest you have told are small,
For centuries, mayhap, you'll be—
Though you each day a word let fall—
A still unfolding mystery.

—Terrell Love Holliday

Mechanical Kneads

IT was not so long ago that human machinery was the sole motive force behind the loaf. Human hands kneaded the dough, and moulded and cut it, carried the bread in large pans to the hot ovens and, when the fresh brown loaves were done, wrapped and sealed each one separately. The conditions were nothing to boast of; poorly ventilated, hot, stuffy workrooms where men had to stand close to the ovens and regulate the temperature by guesswork. Then, with but little opportunity to cool off they had to take up the process of dough-mixing and kneading. This was a very slow one, and in many instances it was decidedly unclean.

But now the staff of life is almost entirely in the hands of electricity. "Do it electrically" seems to be the cry of both baker and consumer, for the products of a bakery in which the processes are carried on by electricity are far superior to the output of the old time shops.

One of the newest and perhaps the most modern bakeries is that recently opened by the Hill-Ware Company at 165th Street and Park Avenue, Bronx. Electrical equipment is used throughout this two-story brick structure from the lighting in the show windows of the salesroom, to the electric washing machines on the top floor. From this bakery the Hill-Ware Company supplies five branch stores.

From the time that the unsifted flour leaves the basement until the dainty, fresh brown loaves are wrapped and ready for sale, the process is entirely mechanical. The flour is first dumped into a huge electric sifter in the basement and is sucked up to the mixing room on the top floor. Two large electrically operated mixing machines are poised, open mouthed, ready for the operator to turn on the

Electrical Installation by Lewis H Woods — *Niewenhous Brothers, Architects and General Contractors*

From This Central Bakery at 165th Street and Park Avenue, the Hill-Ware Company Supplies Five Branch Stores

power. When the ingredients have been deposited in the mixers they are thoroughly beaten by the big whirling paddles. The dough is then emptied into troughs where it is allowed to stand for several hours to ferment. A special temperature must be maintained in this room so that the bread may rise properly. At the completion of this process, the tubs are opened at the ends and the dough rolls down a chute to the moulding and cutting room where another set of electrically operated machines takes up the work.

These ovens are of a new type and make possible the baking of vast quantities of bread or cake in a comparatively short time. They are approximately twenty-five feet long and five feet wide and are covered with tile. The burners, situated in the upper part, are controlled by an electrical apparatus which regulates the temperature throughout the entire oven. The bread is placed on a wide-revolving belt, somewhat similar to the escalators often seen in department stores, and is slowly carried beneath the burners through the entire oven. The heat and belt are so regulated that by the time the loaves have reached the other end they are ready for the electric wrapping machines. By means of this belt arrangement bread may be fed into the ovens continuously in large quantities because the belt may be kept constantly in motion.

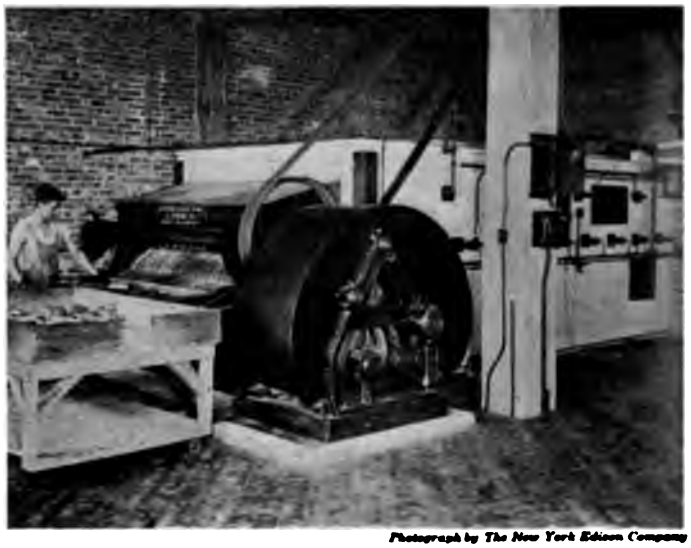
When the bread has cooled a little it is placed in the electric machine where it is wrapped and sealed. From

Photographs by The New York Edison Company

In the Cake Department the Individual Skill of the Baker Still Plays a Large Part, for Some of the Details of Cake Making Must of Necessity Be Performed by Hand

here the loaves are transferred to the shipping department by means of electric elevators.

Crullers and twisted buns are made in an equally interesting manner. The dough is fed through a series of wheels which are graduated in size. These wheels are flat and the dough is rolled from one to the other, gradually becoming longer and smaller. When each separate piece of dough has reached the end of this machine, it is moulded into a long roll ready to be twisted and fried.



Photograph by The New York Edison Company

In the Huge Tile-Finished Oven, in Which Baking Is a Continuous Process the Dough Enters at One End and the Baked Loaf Is Delivered at the Other

There are also electric pie-cutting machines which trim and shape the pies; electric washing machines to cleanse the pans and kettles used in the plant; an electric refrigerator for cooling purposes; an electric icing machine; and electric elevators. This apparatus completes one of the best equipped modern bakeries.

At the entrance to the building is a spacious salesroom equipped in the most up-to-date manner. It has a high ceiling and two large show windows affording plenty of light for the room. The floor and walls are tiled and six electric fixtures supply excellent lighting facilities and add greatly to the appearance of the whole place.

This interesting factory, with an electrical installation of more than 200 lights, and motors totalling 250 horsepower, receives all its current from the lines of The New York Edison Company.

Survival of the Fittest

Fair Lady Moon gave an evening fête,
  And invited all the stars;
There were Jupiter and Mercury,
  Venus, Neptune and Mars;

She wirelessed invitations too,
  To the great electric lights,
Burning away on the planet Earth,
  So steadily o' nights.

The fun was waxing furious,
  When a rain storm interfered—
And, presto! timid hostess Moon
  With the stars, all disappeared!

'Twas impolite to leave her guests—
  The Earth-lights blazed with scorn,
But, having planned to spend the
    night,
  They stayed on, till next morn!

—*Mazie V Carruthers*

Thompson-Starrett Co. Builders *Warren and Wetmore, Architects*

The New Home of S W Strauss & Company, Fifth Avenue and Forty-sixth Street, Makes a Notable Addition to the Group of Banking Buildings in the Uptown Financial District

The Great Arched Ceiling Adds Much to the Dignity of the Banking Room

The Marble Stairway which Leads from the Street to the Banking Room

Electrical Fixtures Installed by Edward F. Caldwell & Co.

The Banking Room in the Strauss Building. This Great Building Has an Electrical Equipment of 7000 Lamps and 193 Horsepower in Motors, Current for Which Is Received from The New York Edison Company

Allen Street

THE shop keepers of the lower East Side are firm believers in the advantages to be gained by the use of electric light. This is particularly interesting considering that the greater portion of the population of this section of the city is foreign born and tenaciously clings to its own national practices, customs and manners. Living in large groups composed almost exclusively of their own people they play, work, and worship in almost the same manner as their countrymen across the seas.

Some of these old-world sections of the city, though perhaps lacking in spectacular appeal, are very worth while visiting. The stores are furnished and conducted in exactly the same way as they might be in the countries from which the proprietors came. Almost all, however, have adopted the use of electric light. But in many cases this has been installed in such a manner as to indicate an attempt to adapt it to the general environment and atmosphere of the place. Thus in one part of the town it is found spreading its soft rays through many colored Chinese lanterns and in another it is cleverly concealed in shades of the Italian National colors; still again in great lamps of hammered and punctured Russian brass.

New York's Russian population is chiefly found in the neighborhood of Allen Street on the lower East Side.

It is a narrow thoroughfare and is almost completely spanned by the elevated railway which runs above it, so that the sidewalks below are always shaded in gloom. Strange foods, running from small fish sold from tubs of brine and which are to be eaten raw, to a hard and indigestible looking candy of an unpronounceable name may be purchased on the street from men with great beards who incessantly call their wares, even while serving customers. Between these two extremes—the fish and the candy—one finds pickled green tomatoes, cucumbers, plums, and even apples! Should none of these delicacies appeal one may purchase a small species of crab for a very moderate sum! The general effect of this street is emphasized in no small measure by the aroma of these various wares!

The Brass Shops

Tiny shops wherein is sold everything required by a population chiefly Russian, elbow and crowd each other for room along both sides of the street. Tea and coffee, strange fruits and vegetables seem to predominate, to judge from wares displayed on the sidewalk. The shops themselves are so small that there is not room within them to store, display, and sell the merchandise, all at the same time. As a result they seem to be chiefly used as storage places. When the wares of one shop intermingle on the sidewalk with those of its next door neighbor, mushrooms and neckties, pineapples and nightgowns, hardware and milk, are so combined as to suggest to the imaginative onlooker nothing so much as a shop keeper's nightmare!

While the size of these shops must

be held chiefly responsible for the necessity of displaying their wares on the sidewalk, other causes have materially contributed to this condition, for as well as being small these shops are dark, due to the presence of the elevated railway. Since electric lights have been installed, better use is being made of the interior of the shops. This is particularly true of those selling brass ware.

These aristocrats of Allen Street sell hammered Russian brass of every conceivable shape and form, from great majestic andirons to pert little nut-crackers. Indeed were it not for its business in brass Allen Street probably never would have been heard of outside of a radius of five or ten blocks. Most of the brass lamps, tea sets, platters and samovars found in the uptown stores were originally made in these curious little shops downtown.

From floor to ceiling, shelves are crowded with small pieces while even the middle of the floor has not been spared and also carries its quota of large plates, lamps and samovars. What goods were displayed in the shop in former times had to be arranged well to the front near the windows, the rear being so dark as to be practically useless.

So it is that the electric light not only provides adequate illumination in these little stores but it also has made it possible for the proprietors to protect themselves against theft, to increase their stock and so to face foreign business conditions confidently and with vastly improved chances for success.

A trip to Allen Street is well worth taking if only in the guise of a tourist and not as a shopper. The

Photograph by The New York Edison Company

It Is from Brass Shops Such as This that the Fame of Allen Street Has Spread Throughout the City

chances are ten to one, however, that packages, large or small, will be carried home from the brass shops. It is well-nigh impossible to spend any time at all within one of these little stores without one's eye being caught by a particularly interesting pair of candlesticks or some other article unique in style and shape. Stay a little longer and undreamed-of treasures will be revealed, such as ancient copper kettles of a dark, reddish brown color with strange stains on them; or perhaps a pail will be brought to view which, though quite large, is so exquisitely shaped and proportioned as to give it the appearance of being small and light. Notice particularly how it is riveted together, and how the old iron handle has a loop in it that is made so that the pail can be hung on a swinging crane over an open fire when a large family meal is to be prepared. Ask to be shown the great, two handled copper loving-cup from which the bride and groom must drink at the same time. Such objects as these are not displayed to the casual shopper, but are brought forth and show them- [illegible] brass.

Photograph by The New York Edison Company

In the Shadow of the Elevated the Allen Street Merchants Carry On Their Business

Much of the polishing of the wares is done electrically, motors replacing the slow and laborious hand method.

But how these articles are manufactured is another story unrelated to one which has only sought to introduce the reader to an obscure and most interesting section of New York.

Then and Now

Time was when a puny light
Tried to drive away the night
Long ago;
Now an incandescent ray
Makes the street as bright as day
With its glow.

—Tobias Martin Bray

Tireless Workers

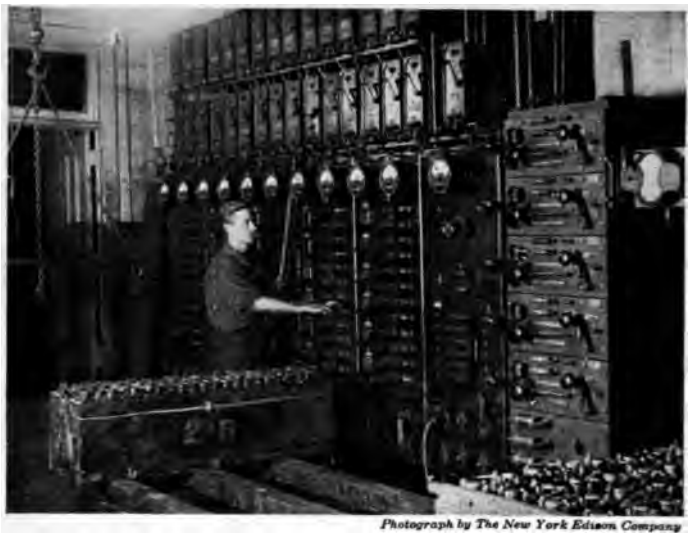
BEARING in mind the fact that 125,000,000 tons of freight enter and leave the Metropolitan District in one year and that most of this freight must, of necessity, travel by water, it can be easily seen that the problem of pier and dock facilities is a tremendous one. Great as this problem is there is yet a greater. The enormous amount of material to be handled must be taken off the ships and loaded onto the trucks which are to convey it to its destination. Such material as is out-bound must be taken off the trucks and loaded on the ships. It is at this point that the main problem lies, and it is here also that a solution for much of the trouble has been found.

For a long time past the electric industrial truck and tractor have demonstrated their usefulness and within the past few years, have so firmly established themselves that nothing can take their place. Not only does the electric industrial truck save time but it has been found by experience that one such platform truck is capable of taking the place of twelve hand trucks. If the electric load-carrying truck were an expensive substitute, the wisdom of its adoption might perhaps be debatable. But a glance at the cost figures, supplied by the New England Steamship Company at Piers 14 and 15, North River, shows that not only does the truck do more and better work, but that there is an actual reduction in cost.

This company has found that the daily outlay for charging and repairing an electric industrial truck is only seventy cents while the driver's wage amounts to $5.48. Contrast a total of $6.18 with the $52.00 expended for twelve men working at a minimum daily wage of $4.50, and it is easily seen that the electric industrial truck earns a saving of forty-five dollars and eighty-two cents per day. Assuming a basis of three hundred days per year, the yearly saving of one such truck reaches the staggering total of $13,746.00. At Pier 14 there are thirty electric industrial trucks in use so that these "tireless workers" return the New England Steamship Company a grand yearly total of $412,380.00.

A Platform Truck of the Type Used at Many Railroad and Steamship Freight Stations

At one pier on the Hudson River the use of electric platform trucks permits a force of between thirty and forty men to handle five hundred tons of freight per day, an accomplishment attained not only more cheaply and rapidly but with far less risk to the shipper.



Photograph by The New York Edison Company

The Charging Board at Pier 10, Central Railroad of New Jersey

The need for modern piers and docks has grown so evident in the past that action on the part of the city has resulted and some of the proposed new docks are already completed. The waterfront section lying between Vesey and Perry Streets is to undergo drastic change for, whereas the old docks are about 650 feet long and 75 feet wide the new ones are to be as much as 1000 feet long and 200 feet wide. Eighteen such piers are to be constructed in Manhattan, taking the place of thirty-four old piers. These improvements will bring about an even greater opportunity for the electric industrial platform truck and the electric tractor and trailers, for the added length of the new piers will make the hauls even longer than is now the case.

The New England Steamship Company uses its platform trucks not only in New York but in Fall River, Massachusetts, doing this in a novel way. An industrial truck, its battery fully charged, is placed on board a steamer at Pier 14 and is carried to Fall River where it works to the limit of its battery capacity and then returns, via another steamer, to this city.

On the pier at the foot of Fulton Street, incoming freight is carried to its "loading section," the letter of which corresponds with the initial of the owner of the freight, and it is called for at this section. The arranging of sections alphabetically eliminates confusion and the mishandling of shipments so that the work proceeds without irregularity. For carrying loads from the steamer to the designated section on the dock the electric industrial truck is supreme for it can maneuver at will in congested places, and running up the gangplanks, can be driven right into the aisles left open for the purpose between the stacked shipping cases in the ship's hold. No time is lost in this manner for the platform trucks require only four minutes to load, two minutes to unload, and two minutes to cover the distance which must be traversed, usually about two hundred yards.

One factor with which the electric industrial truck has to contend during its work on piers, instead of being a hindrance merely demonstrates more decisively the excellence of the truck itself. The steamer is moored closely to the dock it is true, yet the rise and fall of the tide tends to change the angle of the gangplank so that while it may be level with the dock at one time, another hour finds a vast difference. Although the rise and fall of the tide at any point along the Hudson River front does not exceed four feet, eight inches, the grade on the gangplanks at Pier 14 varies from five to twenty-seven per cent. This means added work for the trucks, but they experience no difficulty in pulling their heavy loads against even a twenty-seven per cent grade.

In order to appreciate its advantages, one has but to study the electric platform truck in relation to the moving of canned goods on piers. It is easily possible to put forty-eight cases of canned tomatoes on a single platform truck. These cases contain twenty-four cans each and the cans themselves weigh from two to two and and half pounds each. Using two pounds as a figure, the truck is taking care of 2304 pounds, plus the weight of the wooden packing cases, in one load. It would require twelve hand trucks to do the same work and then the loss of time would be fatal to efficiency.

Almost as important as the electric platform truck in the handling of freight at piers and docks, is the electric tractor with its train of trailers. At Piers 10 and 11 on the North River the Central Railroad of New Jersey employs three such tractors while two more are in use at Pier 39. With a normal complement of fifty trailers for each tractor the work is carried forward rapidly by keeping twenty-five trailers at each end of the tractor's

Photograph by The New York Edison Company

One of the Electric Tractors of the New England Steamship Company with Its Train of Trailers

run so that a train of loaded trailers will always be waiting.

Especially are the electric tractors valuable in the loading of freight on the car floats which are moored to the various piers. These floats usually have twelve cars on them, each car thirty-six feet long, while on the float itself the tractor must haul its train one hundred and twenty-five feet before actually running on the dock. Out-bound freight is taken from the delivery trucks which back up to the loading platform that projects on the street and is placed on trailers which are kept in position in numbered rows. The number above any particular row of trailers corresponds to the number of the car float to which the freight must be carried.

An electric tractor comes along, hitches on to a train of eight or nine trailers and makes its way to the car float bearing the proper number, hauling, at the same time, a load often as great as fourteen tons. The cost of operating a tractor of this kind is ridiculously low in comparison with the work performed. Two dollars a day covers all expenses of charging and repairing while the labor involved amounts to only $5.48. Two hundred trailers are usually operated by three tractors and they are all kept busy.

Outdoors Indoors

Suggested by an Article on Studio Lighting in the January EDISON MONTHLY

The scene is set. "An English Village Lane."
  Winding between tall hedgerows, blossom-white:
A cottage, where the diamond window-pane
  Looks on a garden splashed with golden light.

The scene is changed. "A Scottish Highland Moor"
  Rolls in far billows to the mountain's base,
Now lost in mist, now standing bold and dour
  As sunlight strikes upon its rugged face.

The scene is changed. "A Palm-fringed Tropic Isle"
  Dreams in the dusk as ends the langorous day:
Above the eastern sea grows bright the while,
  The lamp of Dian silvering reef and bay.

The scene is changed. "The Great North Woods" lie dim
  In chilly dawn, then, silent as the trail,
A splendor rises like a voiceless hymn,
  And pine-tree sentinels the Sun God hail!

* * *

Out in the streets Manhattan's millions throng,
  So close to glories, yet away so far:
While Silent Forces that they move among
  Create a sun, a moon, and make a "Star!"

So does Electric Magic play its part,
  Creating, under man's directing will,
The realm of Poetry, Romance and Art,
  Where love allures and brave adventures thrill!

—*Frederick Moxon*

District Offices of The New York Edison Company

Contract and Inspection Department

Broadway District

Temporary Office at 10 Irving Place, David T Brown, Manager; Telephone, Canal 8600. Boundaries: The Broadway District includes the territory south of Christopher and Eighth Streets, west of the Bowery, and south of Catherine Street.

Norfolk Street District

Norfolk Street Office at 20 Norfolk Street, L P Bendall, Manager; Telephone, Orchard 4261. Boundaries: The Norfolk Street District includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catherine Street.

Irving Place District

Office at 10 Irving Place, S F Fahnestock, Manager; Telephone, Stuyvesant 5600, Extension 405. Boundaries: The Irving Place District includes the territory between and including Eighth Street and Twenty-eighth Street from the East to North Rivers.

Forty second Street District

Office at 124 West 42nd Street, W M Kerr, Manager; Telephone, Bryant 5262, Extension 98. Boundaries: The Forty-second Street District includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to the North Rivers.

Eighty sixth Street District

Office at 151 East 86th Street, H S McGrath, Manager; Telephone, Lenox 7780. Boundaries: The Eighty-sixth Street District includes the territory north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park West.

One Hundred and Twenty-fifth Street District

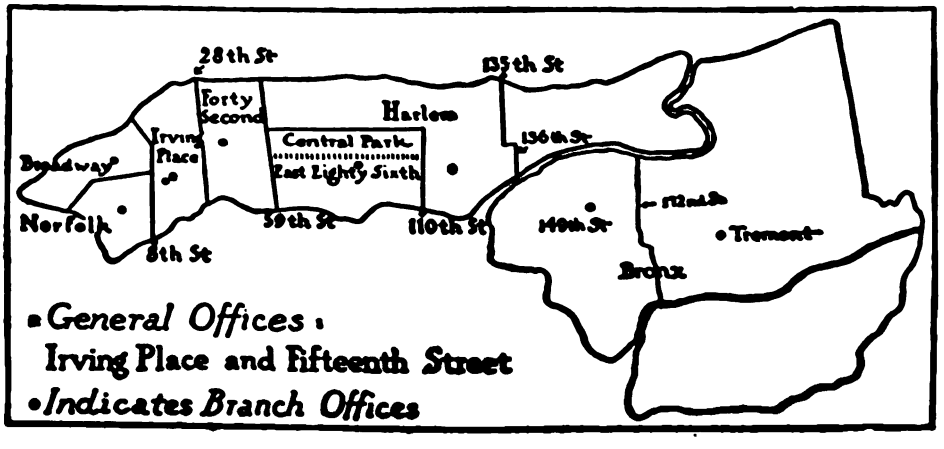
Office at 15 East 125th Street, William J Meara, Manager; Telephone, Harlem 4020. Boundaries: The One Hundred and Twenty-fifth Street District includes the territory bounded by the North River, Fifty-ninth Street, Central Park West, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St. Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St. Nicholas Avenue.

Bronx (One Hundred and Forty-ninth Street District)

Office at 362 East 149th Street, William A Ruenzler, Manager; Telephone, Melrose 9900. Boundaries: All territory lying between the Harlem and Bronx Rivers and between One Hundred and Thirty-second Street and East One Hundred and Seventy-second Street. The dividing number between the One Hundred and Forty-ninth Street Office and the Tremont Avenue Office, on all avenues with the exception of Third and Park Avenues, is 1499. On Third and Park Avenues, however, the dividing number is 3799.

Bronx (Tremont District)

Office at Tremont and Monterey Avenues, Albert Goldman, Assistant General Commercial Manager, Bronx District; Telephone Tremont 6900, Extension 225; Richard Goff, Manager, Tremont Avenue Office; Telephone, Tremont 6900, Extension 100. Boundaries: The territory covered by the Tremont Office extends from approximately One Hundred and Seventy-second Street, north to Yonkers City line; all territory lying between the Harlem River and Two Hundred and Twenty-fifth Street, and the Hudson River from Two Hundred and Twenty-fifth Street to Yonkers on the West, and the Bronx River on the East, including Woodlawn, Spuyten Duyvil, Riverdale and Mount Saint Vincent Districts.



TECHNOLOGY DIVISION

The EDISON Monthly

VGA

NOVEMBER 1921

THE NEW YORK EDISON COMPANY
Irving Place & 15th Street, N.Y.

The Edison Directory
and the Edison Showrooms

THE very great increase in the number of names listed, and consequently the broadened scope and added importance of The Edison Directory make it necessary to issue it as a separate publication rather than as a department of THE EDISON MONTHLY. The Directory in its new form will be distributed partly by mail and partly through the offices of The New York Edison Company. It will be sent without charge to anyone upon request.

The Edison Directory is published for the purpose of rendering the greatest possible assistance to those desiring to use Edison Service for any purpose. Its lists include the names of dealers in every form of electric appliance, manufacturers or their agents, and contractors who do electrical work in the territory served by this Company. So far as is possible, the accuracy of each name and address is carefully verified.

Another object of the Directory is to give to every manufacturer, agent, dealer, and contractor an equal chance with those desiring to purchase devices or to have equipment made.

The Company desires to encourage the establishment of the largest possible number of dealers in electrical devices, appliances, and incandescent lamps, and of independent electric contractors who do satisfactory work at fair prices. It is believed that this policy is in keeping with the public interest, and is aided through a directory of this nature.

Each manufacturer or agent has equal right to free space, electric current and demonstration in the various showrooms of the Company, and equal endorsement by the Company's representatives when talking with prospective purchasers. The Company's representatives are forbidden to recommend any particular device as compared with another, and final choice in the purchase must rest with the purchaser.

It might be added that the Company itself makes no sales (other than of incandescent lamps), nor does it install any kind of electrical equipment upon the customer's premises, other than directly identified with its service and meter. Appliances are shown and demonstrated, and an order from the purchaser will be received and transmitted to the manufacturer or agent of the appliance selected, without commission or charge of any kind for this service.

The New York Edison Company

November 1921

The Harbor in 1867

VOLUME 13

CONTENTS

NUMBER 11

The Edison Monthly

	Page
The Edison Directory	Inside Front Cover
Editorials	186-187
The Giant Tamed (Verse)	188
Lighting St Mark's	189
Using the Savings	192
Mechanical Kneads	193
Hotels Transformed	194
The Electrical Show of 1921	197
Edison District Offices with Map	Inside Back Cover

Copyright 1921, by The New York Edison Company

The Edison Monthly

Published by

The New York Edison Company

General Offices

Irving Place and Fifteenth Street

New York City

N F BRADY, President
WALTER NEUMULLER, Secretary
FREDERICK SMITH, Treasurer

While marked economies are to be expected in the operation of electric trucks, it is not always that the savings can be put to such practicable advantage as has been done by the Careful Carpet Cleaning Company. This company has been using an electric for a little more than a year. That time has been sufficient to prove how much more economical the electric is for delivery of goods in the city, than either the gasoline vehicle or a horse-drawn wagon. Reduced to terms of dollars and cents these savings will amount to enough to finance the purchase of all the company's additional trucks. Using these savings, a certain sum is being set aside at regular periods, and a sinking fund created. It is estimated that within four years, this fund made up of savings will be large enough for the purchase of another electric vehicle.

The vehicle now used by the Careful Carpet Cleaning Company was purchased in the fall of 1920. As delivery was made immediately, the machine has had a full year in which to demonstrate its advantages. A second machine, ordered at the same time for future delivery, has just been placed in service, so now the com- y has two vehicles in operation. exa n irements of such deliveries, the methods employed by the company to insure the protection of valuable merchandise, and the interesting processes of carpet cleaning are described elsewhere in this issue and should prove of interest to anyone confronted with present day problems of delivery management.

In the alteration of two of New York's great hotels into office buildings and the accompanying changes in the mechanical equipment of the structures the student of building management will find food for thought. Especially is this true in so far as it relates to the electric equipment and the source of electrical supply.

In large buildings erected twenty years or so ago there were frequently installed generating plants and the management usually took a great deal of pride in pointing out the fact that the building supplied its own electric light.

But 1921 finds conditions radically changed, and now the structure that installs its own plant is the exception. Therefore, it is not surprising that when the buildings of two decades ago come to be altered to meet the requirements of today, the plans, as in the case of the Knickerbocker and Manhattan, call for central station service.

In these two famous hotels, now serving as office buildings, one can find ample explanation of the reason why so many "large buildings use Edison Service."

In the reports from the exhibitors at the New York Ele al Show,

sales made or contracts closed, may be found convincing signs that the long hoped for business revival, at least as it concerns the electrical industry, is well under way. It is one thing to talk good times; it is something worth while to say that orders have actually been taken. And that is what the exhibitors at the New York show are doing.

A dealer in electrical glassware: in commenting on one order for $14,000 worth of his product, remarked: "I can frankly say that I should never have secured this business if I had not taken part in this show." A manufacturer of violet ray machines sold more than three hundred at retail and closed contracts totaling $100,000. A mechanical servant girl which is just being placed upon the market was shown for the first time. No retail business was done, but the manufacturers report many dealer orders for quantities ranging all the way from 400 up. A manufacturer of dishwashers sold fifty machines during the first four days, and the manufacturer of a washing machine that operates on an entirely new principle interested many prospects. "Our washer has created intense interest and we are more than satisfied with results," is his report regarding the exposition. Among the vehicle manufacturers there were fifteen sales closed and many negotiations for future business opened.

To the casual visitor the show presented much that was unique; while for the seeker of new developments in the electrical field there were many devices which embodied refinements of operation that had been worked out during the past year.

The electrified furniture represented what is probably the most notable forward step in simplifying the use of electrical appliances in the home. Jokesmiths and their quibs about burglar proof beds and the light that finds the elusive collar button, notwithstanding, wired furniture will receive a cordial welcome in many homes which now enjoy their electrical appliances only with the inconvenience of connector cords dangling from their overhead fixtures. The beauty of this idea lies in the fact that one can have electrified furniture without the necessity of discarding the present bedroom or dining-room outfit. Any electrical contractor can install the outlets and run the necessary wiring.

As for new devices, there was the light that stays lit after you turn it out, the electric toothbrush, the electric bootblack, the tiny kitchen range for apartment kitchenettes, the interesting wireless exhibits, and the unusual radio-phone concerts and news bulletins.

With the 1921 show now history, the electrical fraternity is turning its eyes toward next Fall, for 1922 marks the fortieth anniversary of one of the most important events in the whole history of the art the beginning of the present method of generation and distribution as established in New York by Thomas Edison in 1882. Plans are being formulated which shall bring the whole industry together that this anniversary may be properly observed.

The Giant Tamed

Thou Titan grim whose thunderous blows
  The heavens' high calm disturb,
What change thy fiery spirit knows
  Since first it felt the curb,
Since God put forth His hand, and on
  Thy freedom laid His ban;
Set limits to thine arrogance,
  And made thee slave to man!

His bidding now, thou must obey,
  Whate'er that bidding be.
With fleetness, bear his messages,
  From sea-girt shore to sea.
His words, like shuttlecocks, he flings
  Straight out upon the air,
When thou must humbly gather them,
  And to their haven, bear.

Thy magic, at thy master's will,
  Wrests darkness from the night:
As at his nod, thy cunning hand
  Floods all the world with light.
Thy red hot wrath, that left unchecked
  Can hurl to sudden doom,
He tempers to a genial glow,
  That turns the weaver's loom.

Yet, Titan, give him of thy best;
Who toils for others, is twice blest!

—*Pauline Frances Camp*

Decoration by W B Connors

Lighting St Mark's

BELIEF that a system of church lighting could be worked out, which would be not only good technically, and correct aesthetically, but which would also contribute to the devotional feeling of a congregation, is back of the installation of a new lighting system in old St Mark's on East Tenth Street. Until a few years ago, this church was either unknown to the majority of New Yorkers, or heard of only as the burial place of Peter Stuyvesant. Possibly the curious had at some time made an excursion to this out-of-the-way oasis in Manhattan's East Side. Undoubtedly these people had noted the fine old structure, with its garden and churchyard, giving a sigh of regret that such a lovely spot should be lost among a foreign population and the neighboring tenements and shops. But only the most imaginative would have dreamed that a large and active parish could be built up in such an unpromising locality.

Taking advantage of the recent downward swing of city residence, as manifested by the renewed popularity of lower Fifth Avenue, Washington Square, Gramercy Park and Stuyvesant Square, those in charge of St Mark's have managed to make it hold its own in its alien setting, and have even inaugurated a movement to redeem the surroundings. Thus it is that this fine old church, relic of the days when Second Avenue was a place of fashionable residence, now can boast a membership with a special flavor and interest of its own. Cut off from the usual resources of a neighborhood parish, St Mark's has drawn about it many people whose week-day concern is with arts or letters, and who naturally favor improving the aesthetic appeal of the church.

With this in view, a lighting expert was called in, Mr Claude Bragdon, an architect of Rochester, better known in this city for his work in connection with the out-door illumination of the city's Song and Light Festival staged in Central Park. Incidentally, Mr Bragdon was also responsible for the lighting in Walter Hampden's fine productions of "Hamlet" and "Macbeth." Accordingly, Mr Bragdon set to work to design a lighting system intended to promote a religious atmosphere, as decorative stage-lighting is called upon to create a dramatic atmosphere.

It is obvious that the ordinary lighting schemes used for stores, hotels, or theatres and so forth are entirely out-of-tune with the requirements of a devotional service, which needs, according to Mr Bragdon, a general sense of dimness,- the "dim, religious light" of Milton. But in spite of this dimness, there must be adequate illumination at the reading desk, for the pulpit, and in the choir. Besides

these utilitarian demands, there must be, aesthetically and religiously, the glow of light in the chancel and upon the altar. It will thus be seen that the problem of really adequate church lighting is far from simple.

To furnish the gentle, unassertive lighting for the body of the church, Mr Bragdon has made use of chandeliers which are in effect boxes, open at the bottom, but permitting a little play of light through stained glass panels in the sides. These chandeliers are equipped inside with reflectors and color screens, the whole concealed from view by a single sheet of opalescent glass. In each fixture there are four 150 watt type C lamps, each contained in an X-Ray extensive type glass reflector. Each color is on its own

Electrical Contractor: The Lord Electric Company *Photograph by The New York Edison Company*

The Sanctuary and Altar Are Brightly Illuminated By Means of Reflectors Concealed Behind the Imposts of the Chancel Arch

electrical circuit and can be separately dimmed so that any color or combination of colors can be made to appear on the diffusing glass, while when all the colors are used, the glass assumes a prismatic appearance. By directing it where needed, sufficient light is given for reading in the pews, without interfering with the general sense of dimness throughout the auditorium. By this arrangement the worshipper in the pews loses distracting consciousness of the walls and ceiling, which are eliminated as far as the eye is concerned simply by keeping light off them.

Fixtures from the H J Butler Co and the F R Simes Co — *Projectors, Reflectors and Color Screens Furnished by the X Ray Reflector Co*

General Illumination of the Church is Obtained from Specially Designed Fixtures Suspended from the Ceiling and Placed Under the Gallery

In contrast to this, the sanctuary and altar are brightly illuminated by means of concealed reflectors, placed behind the imposts of the chancel arch. A single spot-light, from a concealed source, is directed downward upon the altar, which can thus be suffused with a white light, when the chancel lights are turned off. Similarly, the pulpit and choir can be independently illuminated by means of concealed spot-lights. Separate lighting is likewise provided for the gallery.

Such a system as this, possible only with electricity, is flexible and capable of considerable variation; in other words, it constitutes an instrument for the production of a variety of effects appropriate to different uses of the church edifice, and inductive of different moods on the part of the worshippers. Undoubtedly it represents a distinct advance in church lighting, and suggests infinitely great possibility of development in this field.

Using the Savings

EMPLOYING the savings in delivery cost that have resulted from the installation of the first electric truck a year ago, the Careful Carpet Cleaning Company is establishing a sinking fund through which all future purchases of transportation equipment will be financed. Basing its estimate on the first year's savings, the company believes that it will be possible to purchase a new electric every four years. Meantime, in order that the company may further enjoy the advantages of an electric delivery service, a second electric has been purchased.

The Careful Carpet Cleaning Company cleans, repairs and renovates sixteen hundred yards of carpet a day. The work is done in the building at 419 East 48th Street, and it is necessary that the company have an adequate and dependable delivery department to bring the work to the factory and then return it to the customers. A year ago the cost of this transportation began to assume alarming proportions.

Seeking to reduce this expenditure, a member of the firm visited the 1920 Electrical Exposition and spent considerable time at the display of electric trucks. Data on the relative merits of the gasoline car, the horse, and the electric for city service proved the electric truck to be the best. The result was the purchase of two vehicles. The first of these was bought for immediate delivery, and as a result the vehicle is now completing its

Photograph by The New York Edison Company

The First Truck Installed by the Careful Carpet Cleaning Company Has Proved So Economical in Operation, that the Savings Will Be Sufficient to Purchase Additional Delivery Equipment

first year of service. The second was ordered for future delivery and it has just recently been placed in operation.

Mr O W Brantley, general manager of the company, says that this electric truck saves one dollar and thirty-four cents on the item of fuel alone, while the cost of the stops, since the abolition of the gas car, is reduced by ten cents for each time that the electric vehicle is halted and a delivery or pick-up is made. It is these savings that are to be used for financing additional electric delivery wagons for in a four-year period they amount to more than $4,000. Traveling an average of twenty-four miles a day, it has been found that the electric truck, which is of the two-ton size, draws only one hundred and seventy-eight ampere hours, although carrying a load of from fifteen hundred to twenty-four hundred pounds. The body of the truck has a unique arrangement in that it is divided by upright stakes along the center. Thus, clean carpets are carried on one side, and there is no chance for the dirty ones to soil them.

The cleaning process employed is an interesting one. As the carpets are taken off the truck, they are inspected and numbered and are placed under automatic strap beaters which beat out the loose dust. Vacuum suction is used to absorb this loose dust and dispose of it. The carpets are then subjected to an application of soap solution which is thoroughly forced through the fabric by means of electrically driven rotating brushes. From this process the carpets are taken to a drying room where they are thoroughly dried and sterilized by means of hot air. Another inspection follows, after which they are placed in moth-proof wrappers ready for delivery.

As a protection against theft, two helpers accompany the driver as he makes his rounds. One man remains on the truck at each stop as a guard, while the others go into the home, office or factory and call for or deliver the carpets. The average time required for each stop is approximately twelve minutes.

Deliveries of carpets on which the cleaning and repairing processes have been completed are carried out by numbering as well as labeling each package as it is placed on the truck. A system is in force whereby those numbers are kept in triplicate, so that the entire history of the Company's connection with any given customer can be traced without difficulty. The firm always tries to make its pick-ups as soon after the customer has called as possible and this has been facilitated by the use of electric trucks. Never more than one day is allowed to elapse between a request for the service of the Careful Carpet Cleaning Company and the appearance of its truck and representatives.

Mechanical Kneads

Associated with Niewenhous Brothers, general contractors, and Lewis H Woods, Inc, electrical contractor, in the building of the Hill-Ware Bakery in the Bronx was The McCormick Company, Inc, architects and engineers. This name should have been included in the description of the Hill-Ware Bakery which was published in the October issue of The Edison Monthly.

Architects: McKim, Mead & White
General Contractors: George A Fuller Co

Electrical Contractors: Lord Electric Co
Photograph by The New York Edison Company

The New Uptown Office of the National City Bank is the Remodeled Manhattan Hotel. In Changing the Hotel To a Business Structure, the Old Generating Plant Was Removed and Arrangements Made for the Use of Edison Service

Hotels Transformed

OF the famous hotels of the century now dead, scarcely one remains. The old Astor House at Broadway and Vesey Street, the Cosmopolitan, and the Metropolitan, which held within its wings Niblo's Garden; the Fresco and the St Nicholas, the New York and the Morton House, the Fifth Avenue and the Hoffman House, the Victoria, the Sturtevant and the Brunswick—all are mere memories of a bygone time.

Recently two others, places of character and distinction, have been eliminated from the list of great hotels. As if by the touch of a magician's wand, the ornate Hotel Knickerbocker and the dignified and substantial Manhattan have undergone a transformation at once amazing and radical. Preserving only the steel skeletons and the exterior stone and brick, the genius of the architect has made them into great office buildings quite as if they had risen from their foundations on definite plans so to be.

The soft-lighted foyers with their rugs and draperies, the white and gold ballrooms, the banquet halls and special dining rooms, the grills and cafes, the grand staircases and carpeted corridors leading to suites de luxe and the hundreds of guests' rooms, all have vanished. One may imagine them as stage settings which have been struck by the scene shifters. Now they reflect the ultra-modern idea of tenant service and practical efficiency.

In their equipment one building is much like the other. Both are provided with all the varied utilitarian essentials, and each in the course of transformation has discarded a private generating plant in favor of electrical service from The New York Edison Company. At the National City Building, which is the transformed Hotel Manhattan, there are ten 10-passenger elevators operated by 50-horse-power motors, four others by 35-horse-power motors and one by a 25-horse-power motor. There are besides motors of various sizes for sidewalk lifts, house pumps, boiler feeds, and ash lifts. In the basement waste paper is baled by electrical power. The passenger elevators are capable of a speed of 600 feet a minute. Among the safety devices is a pneumatically operated door closer. This depends upon an air compressor which in turn is operated by two five-horse-power motors.

Electricity in the Vaults

In the great steel vaults electrical service performs a function of unique character. The two-story vaults have entrances from the basement and the sub-basement. They are so placed with respect to the floors that the great circular time-clock doors cannot be opened without a shifting of the floor sections immediately in front. These floor sections are shaped like a half circle and are about ten feet wide.

With the beginning of the day's business, the interior of the vaults must be readily accessible. Switches connecting with small motors are thrown in, and the floorings are lowered to a new level. The vault doors are then swung open, and the motors

elevate the floorings to their natural positions. This function is reversed at the close of banking hours.

These vaults are constructed with an alley on both sides and in the rear. Watchmen making their regular round pass along this narrow way, entering from the basement floor. The walk being of steel grating, the vaults are visible from top to bottom. There are 14,000 safe deposit boxes in the vault and the steel used in the construction weighs more than 500 tons.

Photo by Courtesy of National City Bank

There is no Trace of the Hotel Lobby or Restaurant in This Magnificent Banking Room

The doors and casement on each level weigh forty-one tons, the doors themselves weighing twenty-seven tons. As if to show further the uses of Edison Service, the vaults are lighted and ventilated by electricity. Pilot lights outside show when the vaults are open.

Remembering that the National City Building was formerly a great hotel, it seems appropriate that at least one part of the structure should bear a distant relationship to the business which has passed. The Uptown Club occupies the fourteenth floor. This is one of the newer of New York's many dining clubs. It was formed to meet the needs of mid-city business men. Its membership is close to 700.

The club features dining rooms which are presided over by a steward who knows the fine art of catering. Advantage has been taken of the modern ideas of culinary service in the kitchens, where electricity acts the trustworthy servant of the chef.

Circulating pumps send the brine to the refrigerators and a 30 horsepower motor serves the other requirements of the refrigerating room. The various kitchen and scullery appurtenances take their power from motors which are always in readiness to begin work on the instant. Efficiency is the dominating note. Hand work is reduced to a minimum. Meat is chopped, dough is mixed, rugs are cleaned, rooms are ventilated and dishes washed by machines harnessed to electric power.

Indeed, the National City Building and the Knickerbocker Building stand out as superior examples of Edison Service helpfulness. From sub-basement to roof, electricity serves wherever there is a thing to be done or a need to be supplied.

The Electrical Show of 1921

THE Fourteenth Annual Electrical Show, extending over a period of ten days, from September 28th to October 8th, and held at the 71st Regiment Armory at 34th Street and Park Avenue, was a great success in every way. Not only was it valuable in an educational way to the public that thronged daily through the Armory doors to examine recent developments in electrical apparatus, but it also presented unusual business opportunities to manufacturers and dealers in those same electrical appliances.

Every layman found something of interest to hold his attention, for among the ninety-odd booths in the show there were about 450 different appliances being displayed. One visitor was impressed by the fact that one's person could be cared for from head to foot electrically. In the first place he found that one could take an electric bath, follow it by a shower of electrically heated water, and then an electrical massage. After this, one could don electrically made, washed, ironed and pressed clothing, brush one's teeth with an electric tooth brush, have one's shoes shined by an electric polisher, and be ready to partake of as delicious a meal (electrically cooked) as mother used to prepare.

Electricity, the show proved, stops at almost nothing. The housekeeper found things of interest in the many devices designed to make housework a simple matter of pressing buttons and perhaps providing a guiding touch

Photograph by The New York Edison Company

The Ninety-two Booths at the Electrical Show of 1921 Contained More than 450 Different Electrical Appliances. Approximately 130,000 People Attended the Show During Its Ten Day Run from September 28 to October 8

to the appliances being used. On every aisle throughout the exposition there were washing machines, cylinder, oscillating, and vacuum types, and irons and ironing machines that gave promise of a utopian laundry. Several booths contained a complete assortment of household labor-saving equipment that has done so much toward solving the servant problem of today. Then there were special displays where model rooms showed to the last detail the possibilities of electrical appliances and electrically wired furniture in the home.

Practically every manufacturer who took part in the show reported that business far exceeded his fondest expectations. Not only were many retail sales made to visitors but retail agencies were also established in new territories. So far as the electrical industry is concerned the business revival seems to be well under way.

Exhibitors at the 1921 Electrical Show

Air Felt Polishing Machine Corp'n	105 West 40th Street
Air-O-Mix Corporation	51 Beaver Street
Alpha Electric Company	149 West 30th Street
Anderson Overseas Corp'n	165 Broadway
Appliance Distributing Corporation	673 Eighth Avenue
Aqua Electric Heater Company	250 West 54th Street
Bleadon-Dun Company	Marbridge Building
Bohn, C C Electric Company	820 Sixth Avenue
Buerkle, W A Sales Co	212 Livingston St, Brooklyn, N Y
Clothel Refrigerating Company	61 Broadway
Colgate & Company	199 Fulton Street
Commercial Truck Company	405 Lexington Avenue
Consolidated Tel & Elec Subway Co	54 Lafayette Street
Continental Radio & Elec Corp'n	6 Warren Street
Cooper & Gershvin	98 Park Place
Disbecker & Company	57 West 35th Street
Domestic Electric Company, Inc	43 Warren Street
Duplex Lighting Works	6 West 48th Street
Edison Electric Appliance Co, Inc	140 Sixth Avenue
Edison Storage Battery Company	Orange, New Jersey
Electric Phonograph Corp'n	236-238 West 116th Street
Electric Storage Battery Company	Philadelphia, Pa
Electrical Record	461 Eighth Avenue
Electrical Review	15 Park Row
Electrical Testing Laboratories	80th St & East End Ave
Electrical Trade Publishing Company	53 W Jackson Blvd, Chicago, Ill
Electrical World & Electrical Merchandising	10th Avenue & 36th Street
Equalite Sign Company, Inc	644-648 West 44th Street
Eureka Vacuum Cleaner Company	31 West 43rd Street and 346 Livingston Street, Brooklyn, N Y
Fischer J & C—"Magicoal"	417 West 28th Street
Fitzgerald Manufacturing Company	110 West 34th Street
Fox Electrical Corporation	119 West 42nd Street
General Lead Batteries Company	123 West 56th Street
Gillespie-Eden Corporation	7 Dey Street
Hanovia Chemical Mfg Co, New Jersey Railroad Avenue & Chestnut Street, Newark, N J	
Hart, Wallace B	6 East 37th Street
Home Devices Corporation	11 East 42nd Street
Hoover Suction Sweeper Company	47 West 34th Street
Hurley Machine Company	147 West 42nd Street
International Floor Machine Co	149 West 36th Street
Jackson, Wm H Company	2 West 47th Street
Jorgensen, John Company, Inc	116 Liberty Street
K W Storage Battery Company	514 West 53rd Street
Kimball Electric Company	23 West 37th Street

A dealer in electrical glassware, boudoir lamps and fixtures, closed at a single transaction an order for more than $14,000 worth of his product. In another case a manufacturer of a violet ray machine of the household type sold more than three hundred at retail and closed contracts for export business totaling $100,000. Manufacturers of the mechanical servant girl closed several dealer contracts calling for upwards of a thousand machines each.

From the opening night the Armory was ablaze with light and echoed with the constant murmuring of thousands of voices above which arose the music from an orchestra located in the balcony at the east end of the building. It was estimated that an average of 13,000 people attended the show every day.

A feature that attracted wide public interest was the wireless telephone demonstration. Miss Anna Case of the

Exhibitors at the 1921 Electrical Show—*Continued*

Landers, Frary & Clark	200 Fifth Avenue
Lansden Company	229 West 42nd Street
Laun-dry-ette Sales Company	45 West 46th Street
Lightolier Company	569-571 Broadway
Lombard-White Company	38 Harlow Street, Worcester, Mass
Lund, J L Manufacturing Co	237 Lexington Avenue
Lyons & Jourdan	88 Park Place
Magee Furnace Co, Inc	38 Union Street, Boston, Mass
Manhattan Electrical Supply Co, Inc	110 West 42nd Street
Manning Bowman Company	200 Fifth Avenue
Metropolitan Device Corporation	1250 Atlantic Avenue, Brooklyn, N Y
N Y & Queens Elec Lt & Power Co	Bridge Plaza, L I City
New York Edison Company, The	Irving Place & 15th Street
New York Tribune	154 Nassau Street
"1900" Washer Company, The	Binghamton, N Y
Ohio Electric Company, Inc	145 West 45th Street
Parcol Industries, Inc	Alpena, Michigan
Phenix Lighting Fixture Company	144 Bowery
Premier Service Company	2010 Broadway
Radio Corporation of America	233 Broadway
Rauch & Lang, Inc	17 Central Park West
Regina Company	47 West 34th Street
Rutenber Electric Company	145 West 45th Street
Serrel Electric & Appliance Co	25 Church Street
Shelton Electric Company	16 East 42nd Street
Simplex Utilities Corporation	360 Madison Avenue
Singer Sewing Machine Company	Singer Building
Sloane, W & J	Fifth Avenue & 47th Street
Snow, Thomas B	212 East 23rd Street
Spalt, George & Sons, Inc	904 Broadway, Albany, N Y
Steinmetz Electric Motor Car Corp'n	Baltimore, Md
Torrington Company, The	Torrington, Conn
Tremont Products Co	216 High Street, Boston, Mass
Truswell, William & Son	16 Cedar Street
United Elec Light & Power Co, The	130 East 15th Street
U S Electograph Sign Corp'n	373 East 141st Street
Viking Sign Company	422 West 42nd Street
Walker Vehicle Company	Grand Central Terminal
Walter Motor Truck Company—Fink-Dumont-White, Inc	405 Lexington Avenue
Ward Motor Vehicle Company	Grand Central Terminal
Watts & Barry, Inc	50 Church Street
Weeks, H G Manufacturing Co	Hamilton, Ohio
Western Electric Company, Inc	395 Hudson Street
Westinghouse Elec & Manufacturing Co	165 Broadway
Willcox & Gibbs Sewing Machine Co	239 Fifth Avenue
Yonkers Electric Light & Power Co, The	Yonkers, N Y

Photograph by The New York Edison Company

The Various Devices for Performing the Multitudinous Tasks of the Kitchen Proved A Source of Interest to Thousands of Women

Photograph by The New York Edison Company

The Electric Laundry With Its Washing-machines, Ironers, Dryers and Irons Was One of the Interesting Displays Arranged by the Bureau of Home Economics of The New York Edison Co

Metropolitan Opera Company sang on the evening of September 29th into a wireless telephone. The transmission instrument, into which Miss Case sang, was located in the tower of the Armory, and was in charge of Mr J Andrew White, the acting President of the National Amateur Wireless Association. Mr J O Smith, also of the Wireless Association, was the operator at this station. The diva's voice was heard at receiving stations within a radius of 400 miles as clearly as did visitors at the exposition itself. This was the forerunner of a series of radio concerts that were given every night at the show, making it a novel week of music. The second week's program was arranged by Mr Charles D Isaacson of the "Evening Mail." In the afternoons, news bulletins were flashed out, reaching thousands of operators in the 400,000 square mile territory of which New York is the hub. During the World Series games play-by-play descriptions were sent out.

Two wireless contests were held in connection with the show. The first was the American Championship Code Speed Test, open to all comers. Thirty-nine contestants appeared for the preliminary trials on September 28th and 29th, twelve qualifying for the final. The contest was won by Mr B G Seutter of the "New York Times" Transatlantic Radio Station, who received 44.3 words a minute without errors. He was awarded a silver cup.

Photograph by The New York Edison Company

Manufacturers of Electric Trucks Had An Interesting Transportation Exhibit. They Report Several Sales and Many Prospects

The Amateur "jamming contest," limited to amateurs, was held on Saturday afternoon. Mr B B Jackson of Rutherford, New Jersey, was the winner over twenty-eight other entrants who took messages through interference. In the finals there were two women and three men in the field. Mr Jackson took thirty words in a minute.

The Chinese Merchants Association of 41 Mott Street, was holding a convention during the week of the Show and many members and their friends

visited the Electrical display. They viewed the exhibits and then went to the wireless room where they witnessed the broadcasting of a radio concert. Mr Yee H Kee, President of the Association, exchanged wireless greetings with Mr Arthur Williams, President of the Show, in his home at Roslyn.

Many foreign buyers attended the exposition. A Japanese told one of the exhibitors that he came to New York with the sole purpose of visiting the show. He placed orders for export to Japan. There were also several orders from other merchants for delivery in Norway and Sweden.

Due to the fact that the fleet had arrived in port, a Navy Day was held. Operators on battleships and destroyers anchored in the Hudson River and in the shore stations picked up a message sent out by wireless telephone by Mr Walter Neumuller, treasurer of the show. As a result hundreds of the men visited the show. Others who were unable to go "listened in"

Photograph by The New York Edison Company

What Central Station Service Means to Owners of Large Buildings was the Subject of a Display by The New York Edison Company

Photograph by The New York Edison Company

The Wireless Room from Which Baseball and News Bulletins Were Sent to Amateurs Within a 400 Mile Radius

on the play-by-play report on the World Series game.

An X-Ray machine in the Bureau of Home Economics booth of The New York Edison Company attracted many service men who had been wounded during the war. No exhibit made quite the same appeal to a wounded "vet" as did the X-Ray. More than one veteran spent many minutes examining old fractures and displaying them to friends. The thick ridge of lime that forms around the union of fractured bones always shows up clearly under the X-Ray, and if there is any stray bit of shrapnel that has not been removed, that too shows. In one case a wounded marine into whose shattered jaw bone a piece of his shin had been grafted proudly showed through the floreoscope the place in his leg from which the bone had been removed.

There were dozens of interesting things, that made the exposition one of the best ever held. Among the

newest was the display of wired furniture in a veritable push-button house exhibited by the United Electric Light and Power Company. Kitchen and dining tables, buffets, tea wagons, serving tables, dressing tables and beds, can be so wired as to simplify the use of electrical appliances in the home. With the furniture equipped with outlets it will be no longer necessary to have cords dangling awkwardly from chandeliers.

The "Kitchen Girl," who made her debut at the show, received 800 proposals in a week. Unfortunately she is only a machine that washes dishes, washes vegetables, sharpens cutlery, scours and scrubs, polishes and buffs, whips cream and eggs. But she does it all faithfully and without complaint.

The electric tooth brush, that works on the same principle as the dentist's well known machine, aroused a great deal of curiosity. It has a small motor attached to a flexible shaft and on the end there is a removable, circular brush which turns at the rate of 300 revolutions a minute.

Besides these there is a new light "with brains," for it does not go out until after it has "lighted" one out of the room. It is no longer necessary to stumble around in the dark on the way to the door. Instead one pulls the little chain that is suspended from the socket and leaves the room. A minute later the light automatically goes out.

In January, 1922, a World Trade Cruise is to be started. The *St Louis*, owned by the Anderson Overseas Corporation is scheduled to sail from New York for important ports all over the world. The itinerary

Photograph by The New York Edison Company

To an Audience Numbering Thousands, Many of Them Four Hundred Miles Away, Miss Anna Case, Metropolitan Opera Company Soprano, Gave a Wireless Telephone Concert, on the Evening of September 29. Mr Charles D Isaacson, of the "Evening Mail", Arranged the Program for the Following Week

takes in stops in South America, South Africa, the Antipodes, Japan, China, India, the Mediterranean ports, England, Germany, Sweden and Norway. The cruise will be completed in December, 1922. All classes of merchandise which have any possible demand in foreign countries, are to be included in the traveling exposition.

Photograph by The New York Edison Company

The Display of Electro-Therapeutic Appliances Proved Interesting Alike to Physicians and Laymen. Wounded Veterans Found the X-Rays Particularly Fascinating, and Many Fractured Bones Were Displayed to Admiring Friends

Prominent among them will be a comprehensive electrical exhibit. It is to encourage world trade that this is being done. Foreign merchants are more likely to buy American merchandise if they can see the goods than if they only read about them.

That the Electrical Show of 1921, after presenting to the public many electrical devices either of new development or of several years existence, enormously increased the sale of the appliances exhibited, is an indication of the fact that a similar display carried all over the world would tend to interest other countries just as much.

The Electrical Show of 1921 is now history. It has left its stamp in the progress of electrical development. Its success has left its exhibitors enthusiastic for the fifteenth annual electrical exposition which will be held in the Fall, 1922, and which will serve as a background for exercises commemorating the fortieth anniversary of Thomas A Edison's great work in laying the foundation for New York's present electrical systems.

District Offices of The New York Edison Company

Contract and Inspection Department

Broadway District

Temporary Office at 10 Irving Place, David T Brown, Manager; Telephone, Canal 8600. Boundaries: The Broadway District includes the territory south of Christopher and Eighth Streets, west of the Bowery, and south of Catherine Street.

Norfolk Street District

Norfolk Street Office at 20 Norfolk Street, L P Bendall, Manager; Telephone, Orchard 4261. Boundaries: The Norfolk Street District includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catherine Street.

Irving Place District

Office at 10 Irving Place, S F Fahnestock, Manager; Telephone, Stuyvesant 5600, Extension 405. Boundaries: The Irving Place District includes the territory between and including Eighth Street and Twenty-eighth Street from the East to North Rivers.

Forty-second Street District

Office at 124 West 42nd Street, W M Kerr, Manager; Telephone, Bryant 5262, Extension 98. Boundaries: The Forty-second Street District includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to the North Rivers.

Eighty-sixth Street District

Office at 151 East 86th Street, H S McGrath, Manager; Telephone, Lenox 7780. Boundaries: The Eighty-sixth Street District includes the territory north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park West.

One Hundred and Twenty-fifth Street District

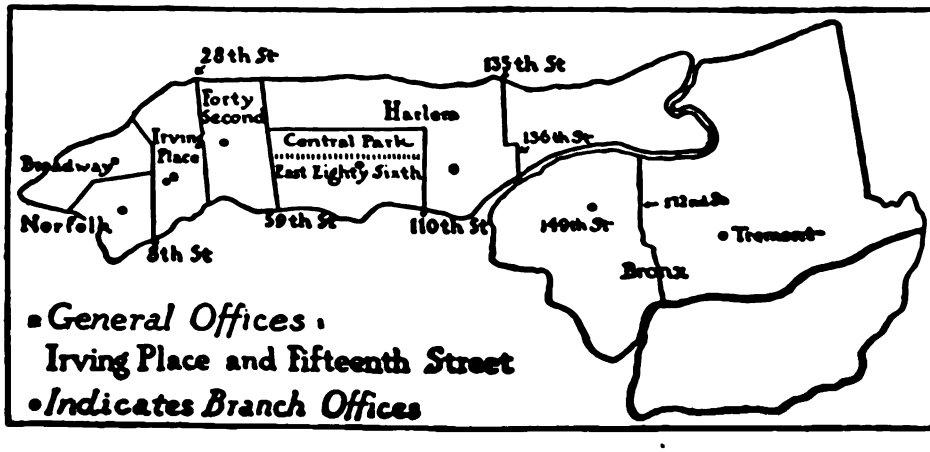
Office at 15 East 125th Street, William J Meara, Manager; Telephone, Harlem 4020. Boundaries: The One Hundred and Twenty-fifth Street District includes the territory bounded by the North River, Fifty-ninth Street, Central Park West, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St. Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St. Nicholas Avenue.

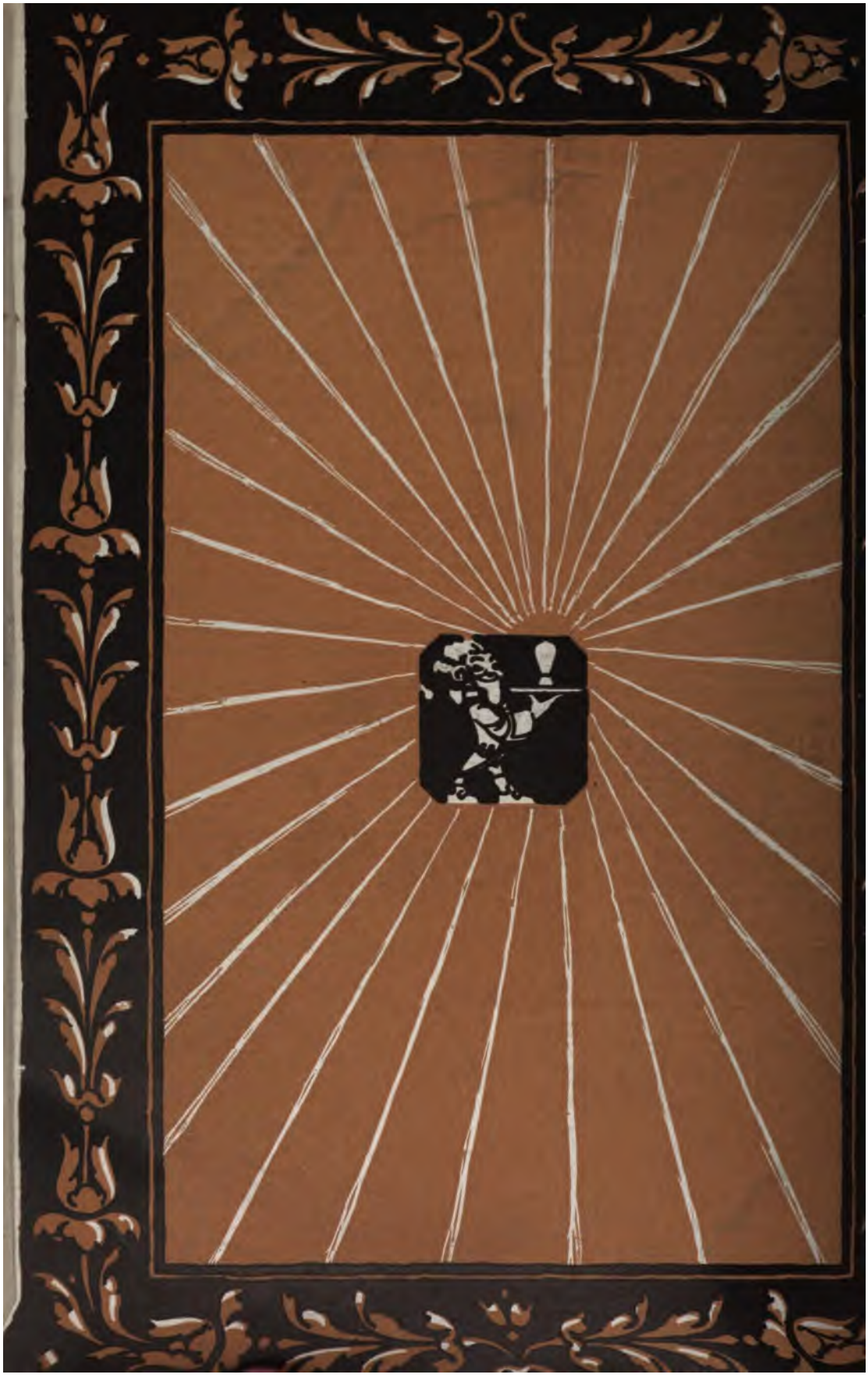
Bronx (One Hundred and Forty-ninth Street District)

Office at 362 East 149th Street, William A Ruenzler, Manager; Telephone, Melrose 9900. Boundaries: All territory lying between the Harlem and Bronx Rivers and between One Hundred and Thirty-second Street and East One Hundred and Seventy-second Street. The dividing number between the One Hundred and Forty-ninth Street Office and the Tremont Avenue Office, on all avenues with the exception of Third and Park Avenues, is 1499. On Third and Park Avenues, however, the dividing number is 1799.

Bronx (Tremont District)

Office at Tremont and Monterey Avenues, Albert Goldman, Assistant General Commercial Manager, Bronx District; Telephone Tremont 6900, Extension 225; Richard Goff, Manager, Tremont Avenue Office; Telephone, Tremont 6900, Extension 100. Boundaries: The territory covered by the Tremont Office extends from approximately One Hundred and Seventy-second Street, north to Yonkers City line; all territory lying between the Harlem River and Two Hundred and Twenty-fifth Street, and the Hudson River from Two Hundred and Twenty-fifth Street to Yonkers on the West, and the Bronx River on the East, including Woodlawn, Spuyten Duyvil, Riverdale and Mount Saint Vincent Districts.





TECHNOLOGY DIVISION
DEC 15 '21 S

The EDISON Monthly

DECEMBER 1921

THE NEW YORK EDISON COMPANY
Irving Place & 15th Street, N.Y.

The Edison Directory
and the Edison Showrooms

THE very great increase in the number of names listed, and consequently the broadened scope and added importance of The Edison Directory make it necessary to issue it as a separate publication rather than as a department of THE EDISON MONTHLY. The Directory in its new form will be distributed partly by mail and partly through the offices of The New York Edison Company. It will be sent without charge to anyone upon request.

The Edison Directory is published for the purpose of rendering the greatest possible assistance to those desiring to use Edison Service for any purpose. Its lists include the names of dealers in every form of electric appliance, manufacturers or their agents, and contractors who do electrical work in the territory served by this Company. So far as is possible, the accuracy of each name and address is carefully verified.

Another object of the Directory is to give to every manufacturer, agent, dealer, and contractor an equal chance with those desiring to purchase devices or to have equipment made.

The Company desires to encourage the establishment of the largest possible number of dealers in electrical devices, appliances, and incandescent lamps, and of independent electric contractors who do satisfactory work at fair prices. It is believed that this policy is in keeping with the public interest, and is aided through a directory of this nature.

Each manufacturer or agent has equal right to free space, electric current and demonstration in the various showrooms of the Company, and equal endorsement by the Company's representatives when talking with prospective purchasers. The Company's representatives are forbidden to recommend any particular device as compared with another, and final choice in the purchase must rest with the purchaser.

It might be added that the Company itself makes no sales (other than of incandescent lamps), nor does it install any kind of electrical equipment upon the customer's premises, other than directly identified with its service and meter. Appliances are shown and demonstrated, and an order from the purchaser will be received and transmitted to the manufacturer or agent of the appliance selected, without commission or charge of any kind for this service.

The New York Edison Company

December 1921

Washington Hall, 1853

VOLUME 13

CONTENTS

NUMBER 12

The Edison Monthly

	Page
The Edison Directory	Inside Front Cover
Editorials	206-207
The Tree of Light (Verse)	209
Organs	210
The Wanamaker Electrics	213
An Electrician (Verse)	214
Light Wizardry	215
Celebrating the Election	218
Lower New York as Seen from an Airplane (Photo)	219
Kitchen Ventilation	220
An All-Electric Apartment	223
Edison District Offices with Map	Inside Back Cover

Copyright 1921, by The New York Edison Company

The Edison Monthly
Published by
The New York Edison Company
General Offices
Irving Place and Fifteenth Street
New York City

N F BRADY, President
WALTER NEUMULLER, Secretary
FREDERICK SMITH, Treasurer

The warning and the three simple rules for safety which the National Fire Prevention Association is broadcasting in the form of a poster from headquarters in Boston, should be constantly in mind during the planning of holiday decorations:

Keep the Fire Demon away from your Christmas Tree.

Use only Electric Lights and non-inflammable decorations.

Keep matches away.

Remove the tree immediately after the holidays.

If these suggestions of the Association are heeded, it is certain that Christmas, 1921, will go down in the country's fire records as having been singularly free from the menace of holiday tragedy.

Just how many wasted calories of human energy are represented by that oft-uttered and expressive sigh, "I am too tired" has long been a matter of conjecture. Science, however, has interested itself in the housewife and her exhausting duties, and by means of a series of laboratory tests has determined the exact amount of energy that she must expend in the different tasks which commonly fall to the lot of woman. The tests were made b[illegible] [illegible]hy and Mr H G Barott of the Office of Home Economics, United States Department of Agriculture. Their findings, recently published, should prove of interest and value to every one concerned with the solution of the housekeeping problem.

In a specially constructed chamber, known as a respiration calorimeter, a young woman executed the various requirements of the tests, and by means of carefully adjusted instruments the amount of heat given off by her body was measured. The principle upon which the tests were made recognized that variations in the change of bodily energy are accompanied by corresponding variations in bodily heat output. It was this heat output, that was measured by the delicate electrical instruments of the respiration calorimeter.

The energy requirement of the different tasks was assumed to be the difference between that indicated by the calory expenditure of the body at rest, and during the performance of the work. In the washing, scrubbing, and ironing tests all the tasks were simulated. The actual motions were gone through and timed, but there was no water used and the iron was cold. This was necessary in order to maintain uniformity of atmospheric conditions,—an impossibility if a heated iron were actually in service.

Sewing, knitting, and crocheting are of course among the lightest of the day's tasks. These require an energy expenditure of from seven ca[illegible] ories for sewing to eleven calories f[illegible] knitting. The woman was in c[illegible]

plete repose for this part of the test. She stitched 30 stitches a minute and knit at the rate of twenty-three stitches a minute. Forty calories an hour were expended in the sweeping process, a long handled broom being wielded at the rate of thirty-eight strokes a minute. For dish-washing, with the sink at a proper height the expenditure was 21 calories. When the work was done at a high sink necessitating lifting the arms the expenditure was 25 calories; the low sink with its tiresome back bending required 30 calories an hour. Here, as in the washing and ironing tests, conditions had to be simulated.

Clothes washing, giving each sixteen-inch towel forty rubs in thirty seconds, wringing it by hand for fifteen seconds, and then exchanging it for another, is the hardest task of the home for it required 49.6 calories an hour. Ironing with a five-pound iron, at the rate of 70 strokes in fifty seconds required 24 calories.

Nor was the baby forgotten in these interesting tests. A full-sized baby manikin was dressed and undressed seven times in two hours, the "mother" expending 23.6 calories an hour. How much greater this would have been had the baby been a real squalling, wiggling youngster, science does not say.

Interesting as these tests are it is hoped that the Department of Agriculture will find a way to make comparisons between these old-fashioned methods, and the modern methods that are made possible through the development of electrical household servants. It is safe to say that the same calory expenditure represented by the entire test period, would, if expended in directing electric labor-saving appliances, witness the accomplishment of a far greater amount of work.

A question often asked by prospective buyers of electric vehicles is, "How far will it go on a single charge of the battery?" The answer depends largely on the type of vehicle—obviously a one-ton wagon will cover a greater mileage than a ten-ton truck.

While the traveling capacity of the vehicle is of considerable moment, it should be looked at relatively and in the light of the requirements of a particular service. In general, an electric of the proper type and in work for which it is adapted, can be depended upon to cover its route and get back to the garage at night. Vehicles in hundreds of spheres of service are proving this every day.

As shown by the records of the delivery department of John Wanamaker, the daily work of an electric vehicle in city service does not demand a great mileage capacity. Covering a territory which includes all of the Greater City, the 1500-pound wagons and two-ton trucks of this department store average respectively only 18.34 and 20.56 miles a day. The figures are for the month of October.

But while the fleet average is low, the individual records show that electrics have ample capacity for long trips. Typical of this are the records of the vehicles which cover the uptown routes; on the 134th Street run the electrics regularly cover thirty-five miles on a single charge.

The Tree of Light

Peace of the Earth! I was a forest tree
And with my brothers whispered on a hill;
We felt the sun, the rippled rain, the snow—
Dark were the nights and far the city's glow,
But ours the hope of Spring that feared no cold
Watching the drifting stars burn blue and old.

We prayed our winged seeds were rooted deep
Down where the little valley dreamed, asleep.
But always did we know the time would come
Sun in our hearts might find another home,
Pride of our strength to needs of men might bend:
Life which had thrilled in youth must brave its end.

Good will to men! I am the "Tree of Light,"
Honored to stand within the city's place,
Illumined beauty for an eager throng:
Stars I have loved come in my arms to lie,
To raptured eyes I am a gloried sky,
Each breeze, long cherished, is an angel's voice.

O Holy Night! Humbly do I rejoice
Who never dreamed to glint a human face,
To be a symbol of the gifts of grace.
The Darkness sways—a little Babe is born!
And caroling upon the air is sweet,
Man's mercy knows the path of shepherds' feet.

I glow anew! I flash my story far,
Joy to the world—to every heart a star!
The dawn is hushed, the Christmas message told;
Then does no wistful child cry in the cold.
Forests and men live but their growth to spend:
I would flame warmth and light unto my end!

—*Edith Livingston Smith*

Illustration by Leslie Crouch

Organs

WHEN the pipe organ speaks, the world stops and holds its breath and listens. It does not matter of what it speaks; whether from its lips there come the clear sweet notes of the flute, the chorusing of birds, the softly distant sound of the *vox humana* like the song of a hidden choir, the pealing of chimes, or the tramp of marching feet; the world relaxes and closes its eyes and forgets.

Such is the pipe organ of today—a wonderful instrument across whose two, three, or even four banks of keys the organist's slender fingers move to produce, with the aid of the many stops and pedals, such music as would stir the hardest heart.

The ancestor of this great instrument was undoubtedly a very, very ancient instrument, for it is mentioned in the first book of the Bible, Genesis iv, 21. "And his brother's name was Jubal: he was the father of all such as handle the harp and the organ."

Probably the development began with the flute from which grew the shepherd's pipe and the bagpipe, the latter being the precursor of the organ bellows. Then there was the syrinx, or Pan's pipe, named for the Arcadian nymph whom Pan pursued and changed into a tuft of reeds out of which he made his pipes.

This development cannot be traced accurately, but it is known that as far back as 250 B C a native of Alexandria, one Ctesibius, invented the *organicum hydraulicum*, an instrument in which wind was generated by a bellows and conveyed to a row of pipes arranged in a scale. In A D 757 a pneumatic organ was in vogue in Constantinople. Up to this time there were no organs in the west and the first, in all probability, to be sent

Photograph by Courtesy of Estey Organ Company

Console of an Organ Installed in the Gallery Above a Music Room in a Private Residence

there went as a gift from Constantine to Pepin, the father of the great Charlemagne. This was placed in the Church of St Corneille at Compeigne.

People of several nationalities took up the craft of organ building. Charlemagne received a gift of an organ from Caliph Harun al Rashid and it was built by Grafur, an Arab. For awhile, the Venetian builders were the best. By the Ninth Century, however, the French and German craftsmen had advanced to such an extent that they held the lead. In England the first organ of importance was that installed, in 980, in the Winchester Cathedral.

There was a period in the history of the organ when it found disfavor. In 1527 at Zurich the cathedral organ was destroyed. The violence spread to the Netherlands where in Antwerp in 1566 a similar destruction took place. Under Henry the Eighth in England the feeling grew and in the time of Cromwell, 1644, all organs were ordered to be destroyed. Cromwell's soldiers splintered the instrument in Westminster Abbey and pawned the pipes at ale-houses for pots of ale. One of the few organs to escape was the one in St. Paul's Cathedral. Organists were dispersed and organ builders were scarcely to be found.

The German and Dutch builders seem to have led in the 17th and 18th centuries. The Dutch erected the famous organ in the cathedral at Haarlem in 1738, and there were many other well-known instruments in Cologne, Antwerp, Strassburg, Walterhausen, Hamburg and Lubeck.

An important epoch in the history of the organ came when in 1712, Abraham Jordan, in the post-restoration period of the organ in England, invented a contrivance of shutters fitted in the front of the echo box to increase the tone of the echo stop. It was opened and closed by a rope attached to a pedal.

In 1789 the horizontal bellows was invented and in 1832 the pneumatic lever. C S Barker had noticed that it required several pounds of pressure to force down the keys of the organ at York Minster. The hydraulic press, the remedy that he presented, was rejected in London. Later it was applied by Cavaille-Coll, of Paris, who built the organ at the Church of St Denis in 1841.

The first application of electricity

Photograph by Courtesy of The Rudolph Wurlitzer Company

The Interior of the Solo Swell Box Together with the Vox Humana, Quintadena, Horn, Tuba Trompete, Violin, Celesta, Salisional, Bourdon Bass. In Front of the Passage Board is a Flute Stop, and to the Left is the Shutter Mechanism which Produces Crescendo and Diminuendo Effects

as an agent effecting communication between the keys and the wind chests of the organ was made by Dr Gauntlet and patented in 1852. This method was crude and Dr Gauntlet neglected to follow up the practical end of his idea. Sometime later an electrical system was patented by which the drawstops could be worked, and this was followed by Mr Barker's departure in which the bellows valves were opened by electricity. At first this system was considered too costly, but the idea was gradually overcome by organ builders and in 1868 the patent was purchased and improved by Messrs Bryceson. From then on electricity as a motive power for organs came into general use.

At first powerful magnets energized by costly batteries were applied directly to open the valves in the organ pipes to admit the air from the bellows. These magnets involved such strong electric currents that there was danger in the possibility that they might become permanently magnetized. This would cause a cipher or sounding of the pipe without pressure on the key, due to the defective action of the valve.

The introduction of what is called secondary pneumatics revolutionized electric action.

With the coming in 1886 of Robert Hope-Jones' application of the electric cable, the tubular-pneumatic action was abandoned. The cable contains the wires which are attached within the organ to small magnets.

Photograph by Courtesy of The Rudolph Wurlitzer Company

The Repeating Station Between the Operator and the Wurlitzer Unit Orchestra. The Effect of the Magnet Spreads from There to the Individual Pipes

These magnets, when energized by a contact with the keyboard, attract thin discs of iron and draw them down allowing the wind to pass in and upward from the bellows into the pipes.

And so we have today the electric pipe organ that may be installed in the auditorium, the place of worship, or in the home, an instrument that has grown and developed from a single pipe or reed to its present size and dignity. At the sound of the magic voice of the organ a calm seems to settle upon everyone who hears, and on Christmas Eve as the organist takes his place at the console in the church and begins to play the chimes, human voices in the street are hushed and faces become softened and inspired eyes look as though into the distant heavens.

The Wanamaker Electrics

FROM four vehicles in 1909, the electric delivery equipment of John Wanamaker has been built up during the past twelve years until now it numbers forty-four machines of different sizes. These are divided between the Philadelphia and New York stores, twenty-four being in the local service. They perform all classes of work and have shown decided economies over other types of vehicles that have been used.

The Wanamaker electrics were built by the Commercial Truck Company at its factory in Philadelphia and, like so many other Commercial Trucks purchased for service in the Metropolitan District, were delivered under their own power. In making the ninety-six mile run from Philadelphia to New York several of the 1500-pound vehicles covered the sixty-five miles from Trenton without recharging the batteries. As a rule, in making the Philadelphia run, electrics stop for a boost at Trenton and for another at New Brunswick.

The delivery equipment assigned to the New York store consists of several gasoline vehicles and twenty-four electrics. The electric fleet includes thirteen two-ton trucks, eight 1500-pound trucks and three 1000-pound wagons. These are used in all classes of delivery and they operate as far north as 134th Street. In making the 134th Street run they frequently cover thirty-five miles at a charge.

While runs of this sort demonstrate the capacity of the electric, the actual day-to-day work as shown by monthly averages does not demand such traveling capacity. The average distance covered by the 1500-pound wagons during last October was 18.34 miles, while the two-ton trucks averaged 20.56 miles. During the month the fleet covered a total of 5328 miles, using 7750 kilowatt hours of electrical energy for battery charging.

The Wanamaker trucks are under the direction of Mr A A Franklin who as superintendent of the garage has charge of all outside deliveries. Last

Photograph by The New York Edison Company

Part of the Fleet of 1500-pound Vehicles Used by the Wanamaker Delivery Department

winter a change was inaugurated in delivery methods. Whereas the 1000-pound wagons had been used for parcel delivery and the two-ton trucks for handling bulky articles it was decided to use 1500-pound machines and have them combine the work of the other two. Formerly, it occasionally happened that two vehicles made deliveries in the same street, one with all the small packages and the other with a trunk or an ice-box. The ice-box was too large for the 1000-pound wagon and the spool of thread too small for the truck.

Now, with a truck of five hundred pounds greater capacity it is possible to handle all of the deliveries. Accordingly the small vehicles are being disposed of as rapidly as possible and 1500-pound vehicles added in their places. With the sale recently of three of the 1000-pound wagons, eight of the larger size have been added. They were installed during July, September and October of this year. The two-ton trucks, which are still retained, are used for the heavy hauling between freight stations and the warehouses and for the delivery of furniture or pianos, or other work beyond the capacity of the 1500-pound wagons.

Of the twenty-two large trucks used by the two Wanamaker stores, eleven have been in operation since 1916, two since 1910 and two since 1909. Those assigned to the New York store, thirteen in number, have just undergone a thorough overhauling, the first since they were installed. A remarkable fact, and one which bears witness to the durability of electric vehicles is the cost of these repairs—an average of $200 for each vehicle. The principal items on the repair bills were the rebuilding of the battery boxes, tightening the rivets in the frames and the shackle bolts in the springs, and overhauling the controller. The motors,

Photograph by The New York Edison Company

One of the Two-ton Trucks Which Was Overhauled Recently at a Remarkably Low Cost

after years of continuous service, were found in first class order.

Although a number of gasoline cars are still used in the Wanamaker delivery Department, Mr Franklin is authority for the statement that they will be replaced for all work in which the electric has shown its superiority. The gasoline cars spend about one-fifth of their time in the repair shop while the electrics are in service every day. Where the gasoline car and the electric have been put on the same kind of work, the electric has shown itself to be fifty per cent more economical.

An Electrician

He's bound to be a *wiry* chap,
Both *powerful* and *light*.
His morals are the steady kind:
He goes not out at night!
In manner, he's *attractive*, and
In conversation, *shines*;
His hobby, flowers; *bulbs* for choice,
Though up in other *lines*.
His heart? Ah! *current* rumors tell,
He's given a *ring* to many a *bell!*

—*Pauline Frances Camp*

Light Wizardry

IN the world behind the footlights the electric director has grown to be one of the most important members of the producing staff. The scenic artist can make you *think* warm or cold by giving you an Arctic or a Tropical set to look at, but the electrician makes you *feel* that you are one or the other. The scene painter appeals to the eye, the artist who directs the lights reaches out to your mind and your heart.

The science of the use of the electric current and colors is almost perfect in its magical illusion and nowhere has the stage been so completely transformed by this art as in America. In the words of Mr W J Thomas, the light wizard of the Century Theatre, where some of the most beautiful of the spectacular plays are produced under the direction of the Shuberts, "America is years ahead of Europe in this work." Or, to put it comparatively, "What they do in Europe in six months, we do in six hours."

This artist, who paints scenes with illuminated colors, modestly calls his studio the Century Electric Shop. The shop is really a series of five or six shops, one above the other, in the Century Theatre Building, and in them is made everything electric, from letters to the most elaborate stage effect.

Tracing the progress of stage lighting from the flickering candle to the

Photograph by The New York Edison Company

The Signal Board on the Stage of the Century Theatre, Through Which Are Evolved the Spectacular Lighting Effects

gas jet footlights and thence to the installation of ninety-six lamps each of one thousand candle power, used in a recent production, is an interesting story, as told by Mr Thomas. His personal experience does not go back to the gas period, but it does date from the use of the bunch system, where the old 32 candle power electric light was employed for spot effects, to concentrate on scenery, and for practically every feature of a production a decade ago.

An accident to the regular lighting at the old Prospect Theatre in the Bronx caused a change in stage lighting to which in large measure, the present effects owe their perfection and realism. That was in 1913. A gale of wind blew over one of the spot light standards and broke the holders of the carbons. No material being handy to replace the broken parts, an incandescent lamp was used. It proved so successful that it is now used almost exclusively for stage lighting and in working out effects today lamps of 1000 watts are employed.

"Mecca" was one of the finest effects produced by electric current, and then came "The Night Watch," staged at the Century. Later successes include "The Last Waltz" and "Bombo," playing at the Al Jolson Fifty-ninth Street Theatre.

The big spectacular scene in "The Night Watch," and one of the greatest ever conceived was a fight between two battleships. Only the bridge of the American ship was seen. It was in the foreground, and of actual size. The enemy battleship was a twelve-foot miniature pictured riding the waves ten miles away. The signals, sailing, and riding lights and the guns were perfectly reproduced.

When the distant battleship was discovered she signalled and all the lights went out. The spectators saw the tiny cruiser in total blackness silhouetted against the sky. These effects were manipulated from the fly floor balcony three stories above.

Photograph by The New York Edison Company

The Seven-section Panel Board Through Which Edison Service for the Whole Building Is Controlled

Then the battle started. Guns were fired, the big battleship was torpedoed, the boilers appeared to explode, the decks burst into flames and the cabins crashed apart. But before the final shot demolished the battleship she managed to fire a return torpedo striking the enemy and sending her to the bottom. It all happened in about one

minute, and next the spectators saw the water closing over the big battleship as she went nose downward into the sea with two persons clinging to a raft.

The producer, it may be interjected here, merely tells the electrician the effects he desires and then leaves the rest to him. It is the electrician who has to consider the safety of the company and the audience when an explosion is reproduced, or a twelve-story building is made to topple over six nights and two matinees a week and when there are one hundred persons on the stage.

Photograph by The New York Edison Company

One of the Electric Shops at the Century Theatre, Where Special Fixture Designs Are Worked Out

Such is the art of the modern stage electrician. It costs from $6,000 to $8,000 to put on even a little effect. There is one in "Bombo," where eight girls, four of whom are dressed as boys pick at mandolins that are electrically lighted. The effect lasts half a minute, but the producers consider it well worth while.

"When we have used an effect, regardless of its cost and the work required to achieve it, and no matter whether the play runs a week or a year, we never repeat it," said Mr Thomas. "This is another proof of the American public's insatiable desire for something new in its entertainments. You must not have a scene about which the audience can say, "It's like such and such a play."

At the Century Theatre, where the Shuberts expect soon to produce a spectacle that, it is claimed will outpoint any other play, Edison current is used entirely. The switchboard is up a flight of steps and is operated by one man. The board itself is as big as the side of a house.

"Scenery is painted with light," said Mr Thomas. "You can take almost any sort of costume and completely change its appearance by the aid of electric effects. Stage lighting applies both to scenery and costumes but most of all it applies to makeup. It is imaginary work. I remember one play that was produced in Philadelphia and which I did not see until the opening night. We had arranged the lighting effects entirely by imagination." The electrician can sit in his office or shop and mentally picture how the walls would look if they were painted a certain shade of green or yellow or red, and then imagine how

the shadows would look with each of these colors. A dawn is a succession of colors; so is a sunset; and cold can be made to seem colder by using a hard effect. Nowhere has the psychology of light, and particularly the mental reactions produced by certain colors been applied to the same extent as in the theatre. Stage lighting has become a highly specialized art, and, as the work at the Century illustrates the electrical director has grown to be one of the most important members of the producing staff.

Celebrating the Election

Bonfires are a thing of the past when it comes to lighting up the town in celebrating elections. This year the illumination of the "Great White Way" was brighter than on any other election night on record. Everybody on Broadway commented on the great flood of light. Even the peddlers of confetti and ticklers and the habitues of Times Square were impressed. It was conceded by everybody the greatest feature of the holiday's celebration.

Electricity furnished all of the light and there were few torches or bonfires, as in other years. Several days previous to the election the great electric signs on Broadway's sky-line were given more or less attention. New lamps were installed, old bulbs were cleaned, and the animals, children, and other attractive figures that dance nightly to the amusement of Broadway throngs, were rejuvenated and made brighter in outline and sprightlier than ever. With dusk election night, the myriads of signs flooded Broadway with light as their part of the program of celebration.

The great hotels, restaurants, dance halls and other rendezvous had their special electric lighting. Spotlights of variegated colors added to the reckless gaiety of the crowds at election balls and gatherings in the hotels. Many of the retailers of horns, whistles, rattles, confetti and other election novelties, who did far from a fair to middling business, said that the crowds were too busy ogling the wonderful lighting displays to bother with their wares. The lack of noise and roisterous exuberance led some observers to say that the old camaraderie appeared to be lacking on Broadway.

Election returns were broadcasted from the stages of all the theatres and motion picture houses. *The New York Times* used Edison Service for two 25-ampere stereopticon lamps to flash election returns on a screen located on the north side of *The Times* building.

The wireless telephone played its part in broadcasting election returns. Several large stations afforded a special election night service for the thousands of amateur radiophone listeners throughout Greater New York. As a result of this speedy radio service the news of Mayor Hylan's re-election was received by supper time, in even the farthest suburbs.

According to the broadcasting operators there were runners at the various amateur stations who carried the news to the headquarters of the local political clubs where other crowds learned of the victory. As usual, the ticker and telephone supplied additional thousands with election news.

Photograph by Major Hamilton Marcell

Lower New York as Seen from an Airplane. Forty Years Ago, in the Narrow Streets Which Are Now Overshadowed by These Giant Structures, Thomas A Edison Laid the Foundations for the Electrical System Which Now Supplies New York City

Kitchen Ventilation

SOME statistically inclined genius whose interest in what he eats extends beyond the dining room table to the realm of the cook has figured that the average woman who does her own housework spends from twenty to thirty-six hours of a ninety hour week in her kitchen preparing meals and washing up after them. Thirty hours a week in a kitchen, with a hot range at one hand, a tablefull of work constantly before her, and a pan of dirty dishes in prospect explains in part why women are usually tired at the end of the day.

In the light of all this it is not surprising to learn that the household type of ventilator is increasingly popular, for it has proved to be an effective means of reducing the discomfort of the overheated kitchen. Briefly, an electric fan, designed especially for the kitchen, is now available in several sizes and types and it is being found in an ever-increasing number of homes. It overcomes disagreeable cooking odors and the heat thrown off by the range by discharging all the air of the kitchen through the window.

Anyone who has cooked three meals a day seven days in the week knows that constant association with food in a room filled with heavy cooking odors and smoky or steaming air is, to say the least, not appetizing. In summer what little relief may be obtained by keeping the windows

Photo by Courtesy Big Electric Ventilating Company

A Fan of This Type, Mounted in the Window, Insures Comfort in the Kitchen

Photo by Courtesy Wing Manufacturing Company

A Blower Type of Fan Installed in the Flue System

open is apt to be offset by the accompanying dust, while in winter fresh air can only be obtained at the expense of chilled rooms. Thus, not only does the kitchen become an unpleasant place to work because of its objectionable atmosphere, but the heat and odors, seeking some outlet, soon permeate the rest of the house.

There are two general types of kitchen ventilators. One is a simple fan designed for installation in the window frame. The upper sash may be permanently lowered and the fan frame built into the window or the fan may be mounted above the lower sash, the upper sash being dropped when the fan is in operation.

A fan of this type draws the free air of the kitchen and discharges it through the window opening. Air so removed is replaced by an equal amount of fresh air which enters the house through the natural openings. Assuming a movement of sixteen hundred cubic feet of air a minute—this is the capacity of a thirteen-inch fan operated by a one tenth-horsepower motor—such a fan would completely change the air in a room 12 x 15 x 9 feet in less than a minute. The other type of ventilator consists of a blower installed in a duct which leads directly from a canopy over the range and discharges either through the window or into the chimney flue.

While fans of these types are designed primarily for ventilating the kitchen they have great all-'round usefulness for they move such large volumes of air that they help very materially in maintaining a comfortable temperature throughout the house.

Architects and General Contractors, The Fred. T Ley Co
Electrical Contractor, H Goldberg

Photograph by The New York Edison Company

This New Apartment Building at 145 West 55th Street Uses Edison Service For an Electrical Installation Which Includes, Among Other Things, Eighty-nine Ranges

An All-Electric Apartment

WHEN life is made to run smoothly and homes reach a high point of beauty and comfort by the mere pressure of a button or turn of a switch, then the public must concede itself a debtor to the electrician. The ingenuity of these modern wizards, who have reduced the domestic problem to its simplest form, is daily offering innovations, and nowhere are they to be seen in greater number or to better advantage than in the new apartment house at 145 West 55th Street. From basement swimming pool to roof gardens this community of homes is the last word in comfort, luxury and convenience.

The fifteen-story building of yellow face brick and stone, in which four score and ten families dwell, is the architectural and structural achievement of the Fred T Ley Company. Mr Horace G Knowles is president of the coöperative company operating the house. The three upper floors, which occupy the "set back," or pyramided portion, belong to the owners of the coöperative organization and the twelve other floors have been leased to tenants. Mr E Kennedy, who has had twenty years' experience in coöperative dwelling supervision, is in charge of this, the first of a series of buildings to be erected after similar plans.

No housewife could view the apartments without appreciating the arrangement, the size of the rooms, the closet space, light, sunshine and the thought that has been expended upon those essential details, which transform housekeeping from drudgery to a pleasure. Many of the ideas for the electric equipment originated with Mr Knowles and all were executed by the firm of H Goldberg, of 1373 Third Avenue.

There are electric ranges in eighty-nine of the apartments. This is the largest number ever installed in one apartment house and it is the first apartment house in the city to be completely equipped with this latest cooking device. This marks a tremendous stride in the progress of electricity as applied to the home.

In order to appreciate a perfect family centre, in which modern equipment abounds, one should visit any of these attractive apartments. The kitchen gleams with white tiles and white painted furnishings and perfect sanitation and comfort prevail. While this room is small it contains all the necessary appointments. The electric range has a warming shelf, an oven and four heating units. The refrigerator is electrically operated and is provided with a cooling apparatus that reduces the temperature to a germ-destroying degree. These are the most imposing features of the realm of the kitchen expert, but there are innumerable other electric appliances, such as an electric iron, vacuum cleaner, toasters, percolators and heaters, that make

for cleanliness in this domestic domain.

All the apartments have built-in porcelain tubs and a few have electric bath cabinets as well. The tired business man or woman and the brain-weary writer find this modern apparatus refreshing to mind and body. There are numerous outlets for attaching any of the smaller electric appliances, which the man and woman of to-day find so essential to comfort and a well-groomed appearance.

It has been deemed advisable by the management to let the swimming pool to the New York Women's Swimming Association, which has entire charge of the basement recreation centre, although tenants may use it at any time, on payment of a nominal charge.

Photograph by The New York Edison Company

The Kitchens, Though Small, Are Complete to the Last Detail, and the Electric Ranges Are Supplemented by Many Other Electrical Devices

The roof gardens are worthy of special mention for they are unique in many ways. Here one sees various uses of electric current. One of this group of aerial outdoor rooms is planned like the after deck of a yacht, awning canopied and with ship's lanterns strung from end to end softly illuminating the deck, which has a rail-high wall of brick decorated with plants and vines. At the far end, which would be just over the propellers, if it were a ship in fact, is an illuminated fountain. The lights play on the splashing water giving it an irridescent effect.

There are also winter gardens as spacious as the summer enclosures and having windows facing the four points of the compass. Thermostatic control of the heating equipment is provided here as well as in all the apartments. And the effect of the cosy fireplace which glows cheerily is obtained entirely by the use of electrically lighted logs or coals. Here pervades an atmosphere of comfort, ease, beauty and luxury. The gardens are ideal for persons desiring seclusion and quiet and they are delightful for gayer occasions, when the owner is inclined to entertain.

Every apartment is light and many have unusually large foyers. The entrance is broad and leads directly to the restaurant. The reception room on the main floor is simply furnished and decorated and throughout the building attractive wall brackets have been placed at intervals to shed a soft and becoming light.

District Offices of The New York Edison Company

Contract and Inspection Department

Broadway District

Temporary Office at 10 Irving Place, David T Brown, Manager; Telephone, Canal 8600. Boundaries: The Broadway District includes the territory south of Christopher and Eighth Streets, west of the Bowery, and south of Catharine Street.

Norfolk Street District

Norfolk Street Office at 20 Norfolk Street, L P Bendall, Manager; Telephone, Orchard 4261. Boundaries: The Norfolk Street District includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street.

Irving Place District

Office at 10 Irving Place, S F Fahnestock, Manager; Telephone, Stuyvesant 5600, Extension 405. Boundaries: The Irving Place District includes the territory between and including Eighth Street and Twenty-eighth Street from the East to North Rivers.

Forty-second Street District

Office at 124 West 42nd Street, W M Kerr, Manager; Telephone, Bryant 5262, Extension 98. Boundaries: The Forty-second Street District includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to the North Rivers.

Eighty-sixth Street District

Office at 151 East 86th Street, H S McGrath, Manager; Telephone, Lenox 7780. Boundaries: The Eighty-sixth Street District includes the territory north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park West.

One Hundred and Twenty-fifth Street District

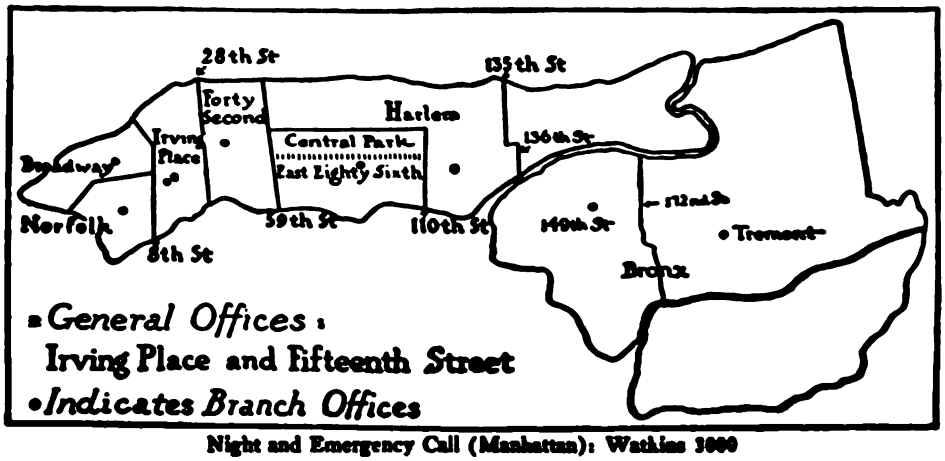
Office at 15 East 125th Street, William J Meara, Manager; Telephone, Harlem 4020. Boundaries: The One Hundred and Twenty-fifth Street District includes the territory bounded by the North River, Fifty-ninth Street, Central Park West, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St. Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St. Nicholas Avenue.

Bronx (One Hundred and Forty-ninth Street District)

Office at 362 East 149th Street, William A Ruenzler, Manager; Telephone, Melrose 9900. Boundaries: All territory lying between the Harlem and Bronx Rivers and between One Hundred and Thirty-second Street and East One Hundred and Seventy-second Street. The dividing number between the One Hundred and Forty-ninth Street Office and the Tremont Avenue Office, on all avenues with the exception of Third and Park Avenues, is 1499. On Third and Park Avenues, however, the dividing number is 3799.

Bronx (Tremont District)

Office at Tremont and Monterey Avenues, Richard Goff, Manager, Tremont Avenue Office; Telephone, Tremont 6900, Extension 100. Boundaries: The territory covered by the Tremont Office extends from approximately One Hundred and Seventy-second Street, north to Yonkers City line; all territory lying between the Harlem River and Two Hundred and Twenty-fifth Street, and the Hudson River from Two Hundred and Twenty-fifth Street to Yonkers on the West, and the Bronx River on the East, including Woodlawn, Spuyten Duyvil, Riverdale and Mount Saint Vincent Districts.



Night and Emergency Call (Manhattan): Watkins 3000
Night and Emergency Call (Bronx): Mott Haven 1300